BUTRINT 5

LIFE AND DEATH AT A MEDITERRANEAN PORT

The Non-ceramic Finds from the Triconch Palace

WILLIAM BOWDEN

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THE NON-CERAMIC FINDS FROM THE TRICONCH PALACE

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THE NON-CERAMIC FINDS FROM THE TRICONCH PALACE

William Bowden

With contributions by

J. Beatrice, T. Fenton, D. Foran, J. Giorgi, C. Isaac, S. Jennings, L. Jenny,
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Front cover: Bone handle (4th to 5th century) from the Triconch Palace (James Barclay-Brown)
Back cover: (top) Gold tetarteron of Basil II (Martin Smith); (middle) Ivory artefact with cross terminal (*c*. 5th century) (James Barclay-Brown); *(bottom)* Copper alloy amulet (5th to 7th century) (James Barclay-Brown)

For Sally Bowden

Contents

Preface and acknowledgements – *William Bowden and Richard Hodges* xi

1. Introduction – *William Bowden* 1
    Summary of the excavated sequence 1
    The archaeological sequence and the material evidence 14
2. An investigation of the subsistence base at Butrint: the archaeobotanical evidence 15
    Alexandra Livarda and John Giorgi
    Sampling and processing methods 15
    Results 15
    Discussion 21
    Concluding remarks 23
3. The faunal remains – *William Bowden, Zoe Knapp, Adrienne Powell, and James Westoby* 25
    Introduction 25
    Methods 25
    The assemblage 26
    The Roman/late antique period (Phases 1 to 10): 3rd century to early 7th century 27
    Age structure and husbandry practices at the late antique Triconch Palace and Merchant's House areas 31
    The medieval period (Phases 12 to 15): early 10th century to 15th century and later 35
    Age structure and husbandry practices at the medieval Triconch Palace and Merchant's House areas 38
    Discussion 39
    Conclusion 41
4. The human skeletons from the Triconch Palace and the Merchant's House – *Jared Beatrice, Todd Fenton, Carolyn Hurst, Lindsey Jenny, Jane Wankmiller, Michael Mutolo, Christina Rauzi, and David Foran* 42
    Introduction 42
    Demographic profile: the Triconch Palace and Merchant's House skeletons 42
    The spatial arrangement of the skeletons 48
    Skeletal palaeopathology 55
    Discussion: living conditions at late antique and medieval Butrint 62
    Conclusion: life and death at late antique and medieval Butrint 66
5. Metalworking at the Triconch Palace and the analysis of slags and waste – *Patrice de Rijk* 68
    Introduction 68
    Iron working 68
    Copper alloy working 74

Silica-rich slag ... 75
Other finds ... 76
Conclusion ... 76

6. The ancient and early medieval coins from the Triconch Palace *c.* 2nd century BC to *c.* AD 600 – *T. Sam N. Moorhead* ... 78
Introduction ... 78
The condition of the coins ... 78
Coins per period ... 78
Deposition of coins ... 83
Mints ... 85
Discussion by period ... 87
Possible hoards ... 93
Conclusion ... 93

7. The middle and late Byzantine, medieval and early modern coins – *Pagona Papadopoulou* ... 95
Byzantine coins (9th to 13th century) ... 95
Non-Byzantine coins (late 10th to 12th century) ... 101
Conclusion ... 103

8. The small finds – *John Mitchell* ... 106
Introduction ... 106
1. Silver artefacts ... 108
2. Copper alloy artefacts ... 109
3. Iron artefacts ... 161
4. The iron nails ... 172
5. Lead artefacts ... 174
6. Glass artefacts ... 178
7. Stone artefacts ... 180
8. Ceramic artefacts ... 201
9. Worked ivory and bone ... 208

9. The vessel glass from the Triconch Palace: a catalogue – *Sarah Jennings, with additional contributions from William Bowden and Karen Stark* ... 218
Introduction ... 218
The glass as deposited ... 219
The catalogue ... 220

10. The Triconch Palace and Merchant’s House as lived environments in late antiquity – *William Bowden* ... 246
The *domus* and Triconch Palace (pre-AD 425: Phases 1 to 4) ... 246
The 5th-century domestic occupation (AD 425–500: Phases 5 to 6) ... 248
The ‘ruralisation’ of the Triconch Palace? (AD 500–50: Phases 7 to 8) ... 250
Blacksmiths and burials (AD 550–650: Phases 9–10) ... 253
Living and dying in later 6th-century Butrint ... 255
The Triconch Palace and the archaeology of late antiquity ... 256
Conclusion ... 259

11. Living and dying at the Triconch Palace in the Middle Ages – *William Bowden* ... 260
Abandonment (mid-7th to early 10th century: Phase 11) ... 260
Urban renewal, soldiers and stock rearing? (10th to 12th century: Phases 12 to 13a) ... 261
Diminishing activity and the severing of the channel link (*c.* 12th to 14th century: Phases 13b to 14a) ... 264
A small Venetian garrison? (*c.* later 14th to 16th century: Phases 14b to 15) ... 266

Appendices

4.1. The human skeletal remains: supplementary material – *Jared Beatrice* 269
4.2. Summary of the human skeletal remains from the Baptistery – *Jared Beatrice* 273
6.1. Catalogue of coins from the Triconch Palace and Merchant's House, up to *c.* AD 600 – *T. Sam N. Moorhead* 275
6.2. Excavated coins by context and period – *T. Sam N. Moorhead* 299
7.1. Catalogue of coins from the Triconch Palace and Merchant's House 9th to 17th century – *Pagona Papadopoulou* 320

Bibliography 327
Index 340
Colour Plates 351

Preface and acknowledgements

William Bowden and Richard Hodges

This volume covers the non-ceramic finds and environmental evidence from the 1994–2003 excavations at the Triconch Palace and the adjacent area known as the Merchant's House at Butrint in southern Albania. The stratigraphic and structural sequence from the site was described in an earlier volume (Bowden and Hodges 2011), while the Roman and medieval ceramics from the Butrint project, including those from the Triconch area, will be dealt with separately in forthcoming volumes by Paul Reynolds and Joanita Vroom. While separating different categories of material in this way is not perfect, it has been adopted as a means of keeping the publications to a manageable size and maintaining the momentum of a publication programme stretching across multiple volumes. The history of archaeology is littered with projects that remain unpublished because the desire to present simultaneously every aspect of the research in its entirety could not be fulfilled prior to the excavators' deaths or retirement. We do not wish to add to that number and are proceeding on the basis that it is better to publish incrementally than not at all. Equally, there are many aspects of the Butrint material that could be explored in greater depth and we hope that by making as much of the data available as possible we can facilitate further use of it and allow it to inform further research and discussion.

Dealing with materials in the quantity of those recovered from the Triconch excavations was by no means straightforward in the environment of Butrint in the 1990s and early 2000s. Finds processing was initially restricted to the castle built by the Italian Mission of Luigi Maria Ugolini in the 1930s. Power and water supply were intermittent and access to different rooms was sometimes dependent on the fluctuating political allegiances of the changing officials who held the keys. The castle stores were overrun with rats that would chew the finds bags containing ceramics and eat the labels, as well as liberally spraying the bags with urine and faeces. The coins and other metal finds from the 1994–96 excavations disappeared when the museum was ransacked during the so-called Pyramid crisis of 1997. Our finds supervisors and specialists thus deserve special credit for working in conditions that, even by the standards of Mediterranean archaeological projects, were often challenging.

The success of any long-running archaeological project is dependent on the support and goodwill of multiple individuals and organisations. First and foremost, for their patient support during first the excavations and then the protracted publication programme, we are particularly grateful to Lord Rothschild and Lord Sainsbury of Preston Candover, who established the Butrint Foundation. We also owe a special debt to Dr David W. Packard, President of the Packard Humanities Institute, for his singular support for the 2000–03 excavations and post-excavation work in a partnership with the Butrint Foundation.

Our thanks, too, to other supporters of these excavations and the associated archival research: in particular, the late Dame Drue Heinz of the Drue Heinz Trust, the David and Lucille Packard Foundation, and the World Monuments Fund. We also wish to acknowledge a grant from the British Academy for the 1994 season. The conservation and presentation of the excavated site in 2005 was made possible by support from the Howard and Nancy Marks Foundation.

We are also indebted to Sir Patrick Fairweather, formerly British ambassador to Albania (1992–96), and from 1997 to 2004, the Director of the Butrint Foundation. Thanks, too, to Daniel Renton, Director of the Foundation between 2004–06 who oversaw the conservation and presentation of the Triconch Palace; to Rupert Smith, Director of the Foundation during 2007–08; and to his successor, Brian Ayers.

Richard Hodges and Gjergj Saraçi served as co-directors of the Butrint Foundation project from 1994 to 1996; and Richard Hodges and Kosta Lako with Ilir Gjipali were co-directors 1998–99. Richard Hodges and Ilir Gjipali were co-directors from 2000 to 2009. Our thanks to Iris Pojani and Diana Ndrenika, successive Directors of the International Centre for Albanian Archaeology in Tirana, and to our

Albanian colleagues: Lorenc Bejko, Neritan Ceka, Ylli Cerova, Dhimiter Çondi, Reshad Gega, Ilir Gjipali, Shpresa Gjongecaj, Kosta Lako, Telemark Llakhana, Pellumb Naipi, Astrid Nanaj, Etleva Nallbani, Guri Pani, Luan Përzhita and Artan Shkrelli. Finally, we owe a special debt to the Director of the Institute of Archaeology during the course of these excavations, Professor Muzafer Korkuti, and his successors Shpresa Gjongecaj and Luan Përzhita.

The project began with the support of the British School at Rome. From 1996 to 2006, it formed part of the research programme of the Institute of World Archaeology in the University of East Anglia, Norwich. Much of the post-excavation work was carried out under the aegis of the Butrint Foundation and International Centre for Albanian Archaeology in both Tirana and the University of East Anglia, Norwich. William Bowden's later work on the volume has been undertaken whilst working in the Department of Classics and Archaeology at the University of Nottingham.

The field seasons were: September 1994; April 1995; September–October 1995; April 1996; September 1996; and September 1998. The September–October 1999 season was devoted to studying the finds. There then followed four major seasons of excavations in April–May 2000; June–July 2001; June–July 2002; and June–July 2003. Sally Bowden acted as project manager of the 1994–2003 seasons. Kosta Lako and Oliver Gilkes supervised the excavations at the Triconch Palace except for the final seasons in 2002–03 when Ylli Cerova, Andrew Crowson and Karen Francis, assisted by William Bowden, oversaw the completion of the excavations. A small army of excavators took part in this project. Special thanks go to Alda Agolli, Dave Boschi, Jayne Bown, Adam Brossler, Stavri Cifligu, Peter Crawley, Jon Crisp, Nick Croxson, Grace Fagan, Emily Glass, Simon Greenslade, Albana Hakani, Benen Hayden, Charlotte Hodges, Riza Hasa, Valbona Hysa, Klodiana Kondo, Rovenna Kurti, Graeme Laidlaw, Edwin Lamce, Sarah Leppard, Sinead Marshall, Sinoida Martelozzi, Nevila Molla, Jonny Monteith, Jerry O'Dwyer, John Percival, Erjona Qilla, Emmy Rothschild, Louise Schofield, Riley Thorne and Kledji Zguro.

The processing of the finds described in this volume was managed by Dave Boschi and Inge Lyse Hansen, assisted by Ilir Papa, Liri Shametaj and Sabina Veseli. Conservation was by Pippa Pearce MBE of the British Museum. Finds photography was by James Barclay-Brown, Martin Smith and Mike Grayley. Finds illustrations were by Adelheid Heil, Julia Jarrett, Sarah Leppard, Sarah McDowell, Pellumb Naipi and Leomie Willoughby-Ellis. Paul Reynolds has studied the Roman pottery and Joanita Vroom has studied the medieval ceramics. Management of the team's accommodation and daily routine was overseen by Gjoni Marko from 2001 to 2005. Mention should also be made of the tireless Muzafer Lazë, our driver and general factotum.

The preparation of this volume has been a lengthy process and its existence owes much to the support and practical assistance given by a number of people, particularly Andrew Crowson, Oliver Gilkes, Simon Greenslade, Natasha Harlow, Richard Madgwick, Nevila Molla, Hannah O'Regan and Naomi Sykes. The completion of the volume owes much to the efforts of Sarah Leppard who undertook the glass illustrations and completed the massive task of organising the small finds illustration for Chapter 8. The index was compiled by Natasha Harlow. We would also like to thank Julie Gardiner and the team at Oxbow for their forbearance during this book's lengthy gestation, and Julie Blackmore at Frabjous Books, who undertook the complex task of typesetting the volume with great skill and patience. Finally, we would particularly like to thank Sally Bowden, who played a pivotal role in the organisation and management of the Butrint project and has lived with the production of successive Butrint volumes for the last 15 years. This book is gratefully dedicated to her.

1 Introduction to the site and the excavations

William Bowden

The Triconch Palace is located adjacent to the Vivari Channel along the southern shore of the Butrint peninsula (Figs 1.1, 1.2). It was first investigated by the Italian Archaeological Mission in the 1920s, when the extant triconch *triclinium* was interpreted as a Byzantine church (Ugolini 1937, 176). This interpretation was followed by writers in the post-war period and by archaeologists from Albania's Institute of Archaeology who carried out investigations of the *triclinium* and adjacent structures during the early 1990s (Anamali 1993, 470; Lako 1990; Meksi 1988, 207–8). At the inception of the Butrint project, the triconch itself was identified as a reception room of a major late Roman *domus* and on that basis formed the major excavation focus of the first phase of the Butrint project from 1994 to 1999 (Hodges, Bowden and Lako 2003), with excavations continuing on a larger scale from 2000 to 2003. The excavated area (Figs 1.3, 1.4) eventually covered an area of around 150m × 50m, of which around 50% was excavated in detail. The Triconch Palace and Merchant's House complex have been described in detail in Bowden and Hodges 2011a and a brief overview of the site and its phasing will suffice here.

The relatively small-scale excavations from 1994 to 1998 established the layout of the Triconch Palace and included limited trenching on the north, east and south wings. From 2000 onwards, following the securing of significant support from the Packard Humanities Institute, this was expanded into large-scale open-area excavation, which focused on the south and west wings and the peristyle courtyard of the Triconch Palace and on an adjacent complex of buildings to the west, tentatively interpreted as having a commercial function and apparently delineated from the Triconch Palace by a long property boundary. This second area was christened the 'Merchant's House' quite early in the excavation. Notwithstanding the ideological baggage inherent in such a term, this name has been maintained given that it is present in much of the primary archive of the excavation. Relatively little work beyond cleaning and recording was done on the triconch *triclinium* and the eastern wing as this had seen extensive earlier clearance excavation.

The excavations were carried out primarily by experienced site archaeologists from British and Irish commercial units, together with Albanian students. Local workmen were used mainly for topsoil clearance and barrowing. The work was frequently impeded by the high level of ground water at the site, which made it almost impossible to reach the earliest levels. Indeed, the earlier phases of the complexes are recognisable primarily through their structural remains and thus most of the evidence dealt with in this volume relates to later phases of occupation that post-date the abandonment of the late Roman *domus*. This will be discussed in greater detail below.

Summary of the excavated sequence

The interim publication of the excavations (Gilkes and Lako 2003) identified eight phases, which were eventually expanded to 15 in Bowden and Hodges 2011a. These phases (Table 1.1) encompassed the period from the 3rd century AD and earlier until the 15th century and later. They form the basis for the reports in this volume and can be summarised as follows:

Phase 1 (3rd century AD and earlier): the earliest occupation (Fig. 1.5)

The limit of the Hellenistic settlement at Butrint seems to have been closer to the foot of the acropolis, but deposition of silts by the Vivari Channel seems to have allowed a skirt of land to develop beyond the Hellenistic wall circuit which ultimately became sufficient to support building. By the 2nd century AD, if not earlier, there were the first phases of what was probably a substantial dwelling, flanked by roads or trackways (of which that to the west was identified) allowing access to the waterfront. The road to the west of the building was not a formalised road but seems to have been a rough, unpaved track.

Table 1.1. The phasing of the Triconch Palace and Merchant's House excavations

Phasing of the Triconch Palace and Merchant's House excavations		
	Triconch Palace	**Merchant's House**
1: 3rd c. and earlier (*c.* AD 100-250)	Earliest occupation	
2: 3rd to 4th c.	The early *domus*	Earliest excavated parts of Merchant's House
3: early 5th c. (*c.* AD 400)	The peristyle *domus*	Continued modification
4: early 5th c. (*c.* AD 420)	The Triconch Palace	
5: early to mid 5th c. (*c.* AD 420-450)	Post-built structures and industrial/domestic occupation. Reduced dwelling in west wing	
6: mid to late 5th c.	Possible flooding and other occupation	Extension of west wing and addition of upper storey
7: early 6th c.	Construction of city wall; reoccupation of southern wing and roof collapses in west wing	Construction of city wall and abandonment and demolition of parts of complex
8: mid 6th c. (*c.* AD 525-550)	Demolition and dumping; extensive use by fishermen; beginning of burials	Mussel processing
9: mid to late 6th c.	Industrial activity in some rooms	Construction of two-storey building next to city wall
10: late 6th to 7th c.	Demolition and burial	Abandonment of two-storey building; continued mussel processing
11: mid 7th to early 10th c.	Minimal occupation/activity	Mussel processing
12: early 10th to late 10th c.	Stone and post-built structures and quite intensive activity	Mussel processing
13: early 11th to late 12th c.	Continued deposition in courtyard; further post- and stone-built structures	a) Construction of two-storey building and cobbled surface b) Construction of tower and new timber buildings
14: early 13th to 14th c.	Renewed burial; little defined activity in Triconch area; quantities of material indicating nearby activity	Repair of tower and insertion of burials; blocking of gate; agricultural activity
15: 15th c. and later	No discernable activity in Triconch area	Agricultural activity and dumping of refuse

Phase 2 (3rd to 4th century): buildings before the peristyle domus (Fig. 1.5)

During the 3rd to 4th century, additions were made to the earlier structures creating what is clearly recognisable as a relatively grand late Roman *domus* arranged around a central courtyard. It was entered from the west via an ornate vestibule that led to a long gallery (Room 18) paved with an opulent geometric mosaic, with an open colonnade on its south side that looked onto the Vivari Channel beyond. This gallery allowed limited access to the house to the north and also led to what appears to have been the principal reception room of the house (Room 24). This room, which was initially square before being augmented with an apse, was also decorated with an ornate mosaic pavement and featured an octagonal fountain clad in marble veneers.

At around the same time structures (undated beyond placing them earlier than the 5th century) were being built on the plot to the west of the *domus* (the so-called Merchant's House area). The small size of the rooms and the absence of decoration led to the tentative interpretation that these were perhaps commercial premises taking advantage of the channel-side location. However, nothing is known of these beyond their wall plan.

Phase 3 (c. AD 400): the peristyle domus (Fig. 1.6)

Around AD 400, the *domus* underwent a major reconstruction which saw the insertion of a small peristyle courtyard and the creation of a new principal entrance on the western side of the complex (Room 25). The new entrance was floored with a mosaic that seemingly announced the owner's name and the fact that he was a *lamprotatos*, the equivalent of the Latin *clarissimus* and thus of senatorial rank. A small

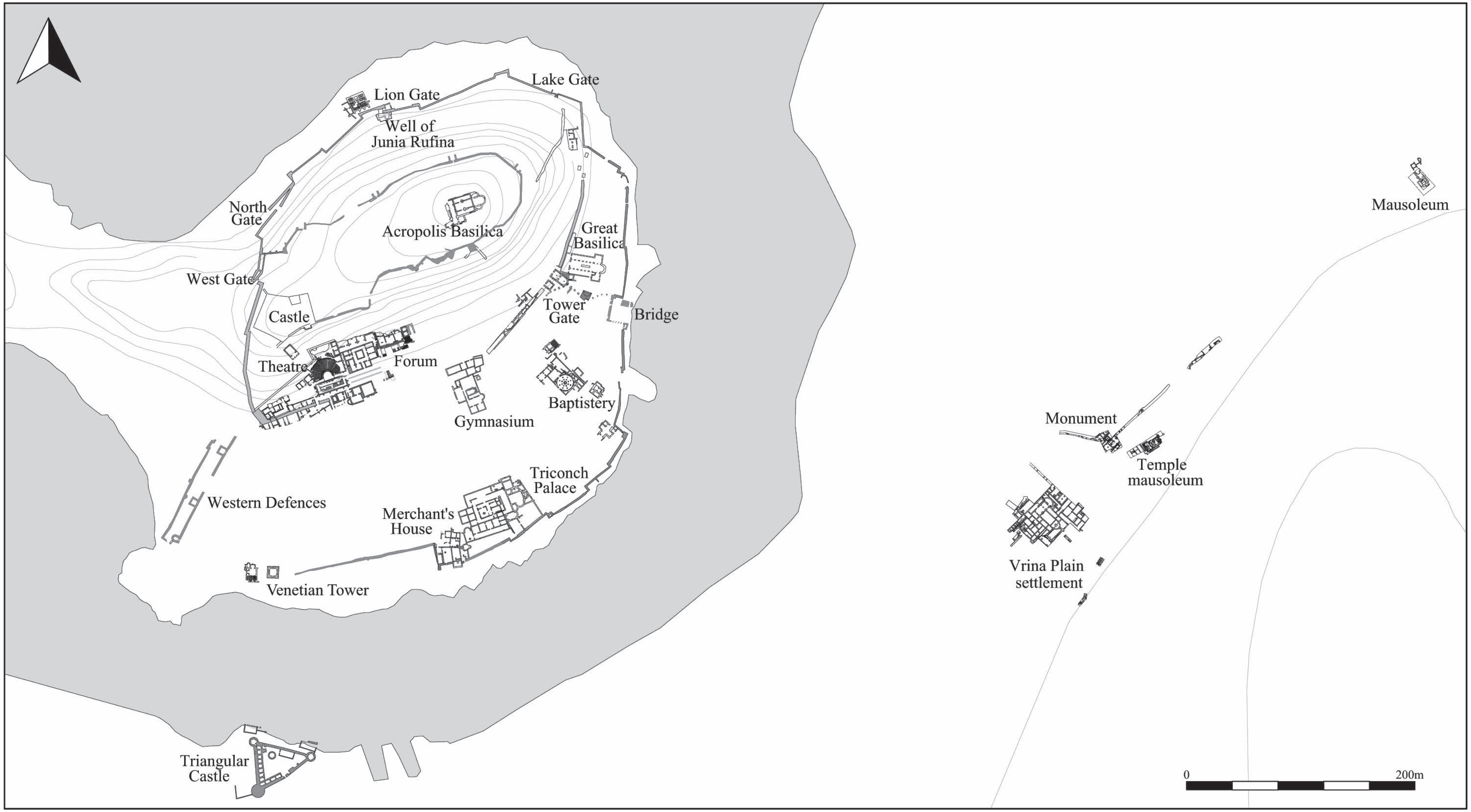

Lion Gate
Lake Gate
Well of Junia Rufina
North Gate
Acropolis Basilica
Great Basilica
West Gate
Castle
Tower Gate
Bridge
Theatre
Forum
Baptistery
Gymnasium
Triconch Palace
Western Defences
Merchant's House
Venetian Tower
Triangular Castle
Mausoleum
Monument
Temple mausoleum
Vrina Plain settlement
0
200m

Figure 1.1. Butrint, showing the location of the Triconch Palace and Merchant's House

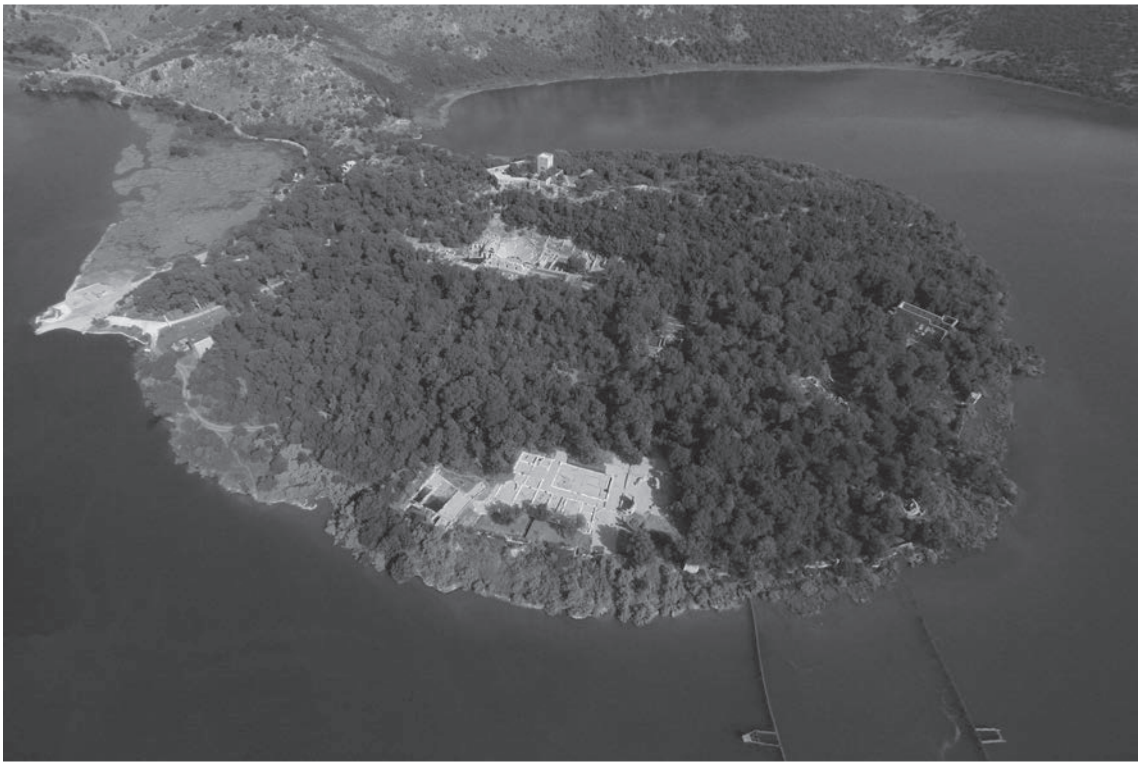
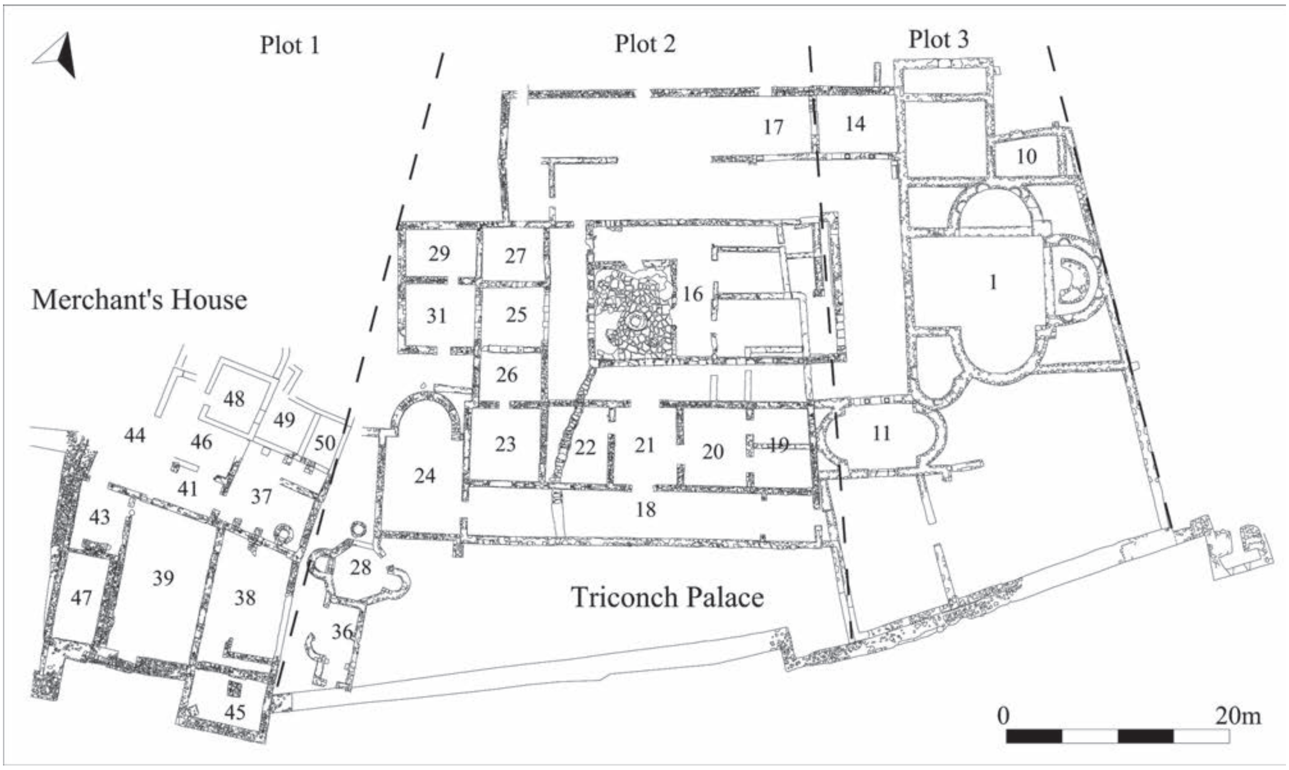


Figure 1.2. Aerial view of Butrint, with the Triconch Palace in the immediate foreground


Plot 1
Plot 2
Plot 3
Merchant's House
Triconch Palace
17
14
10
29
27
31
25
16
1
26
48
49
44
46
50
23
22
21
20
19
11
24
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47
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20m

Figure 1.3. Plan of the excavated area showing Room numbers used in the volume

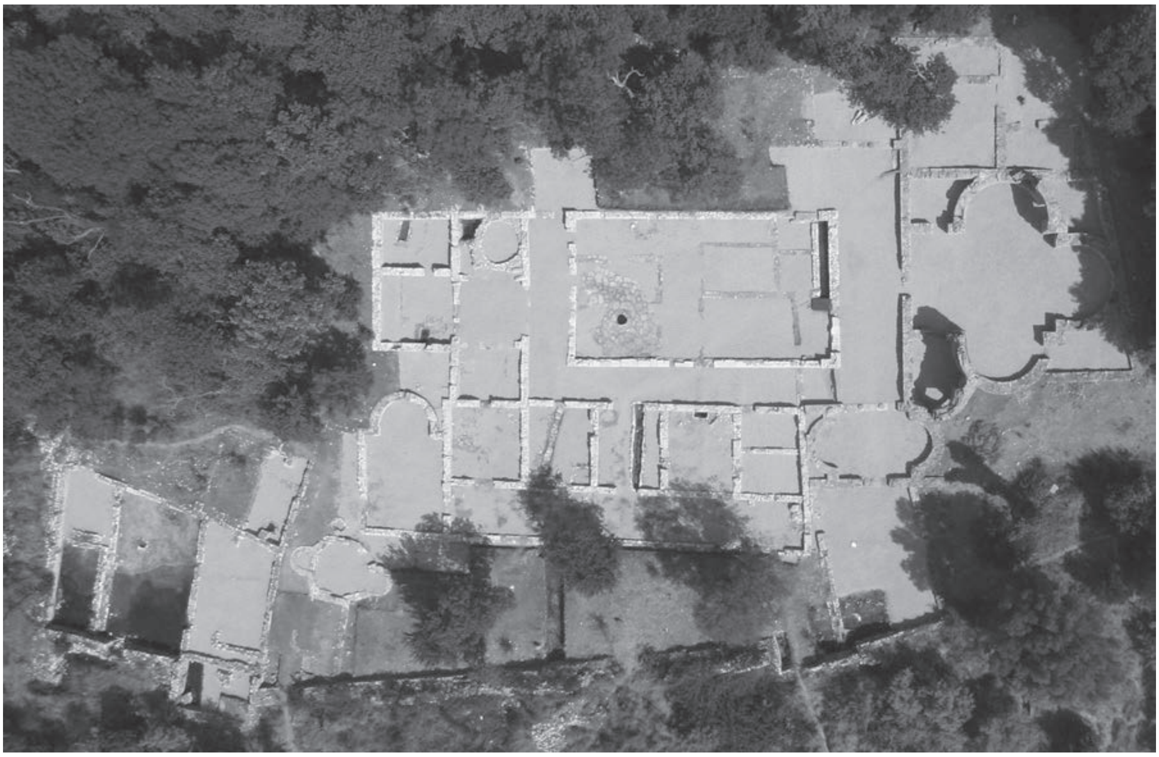


Figure 1.4. Aerial view of the excavated area

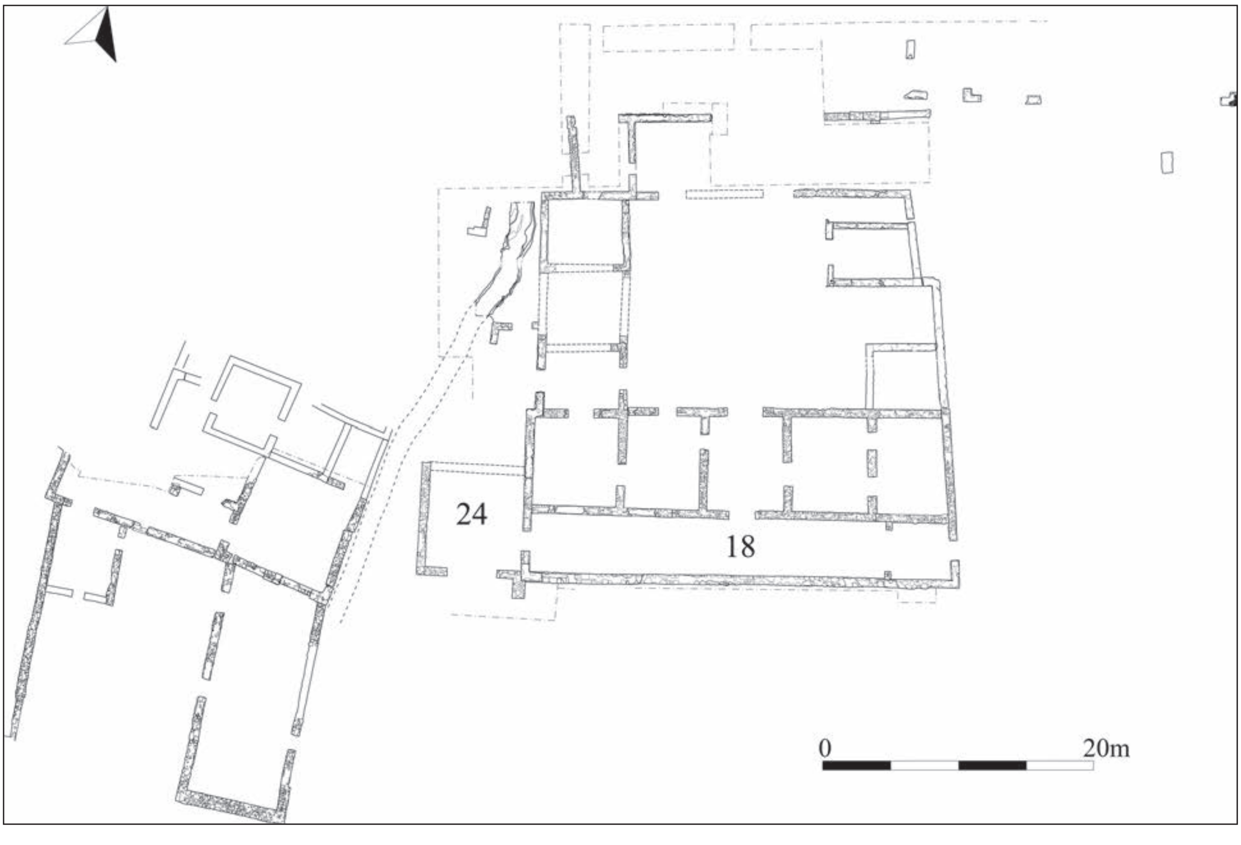


Figure 1.5. Phases 1–2, showing trackway between the domus and Merchant's House areas

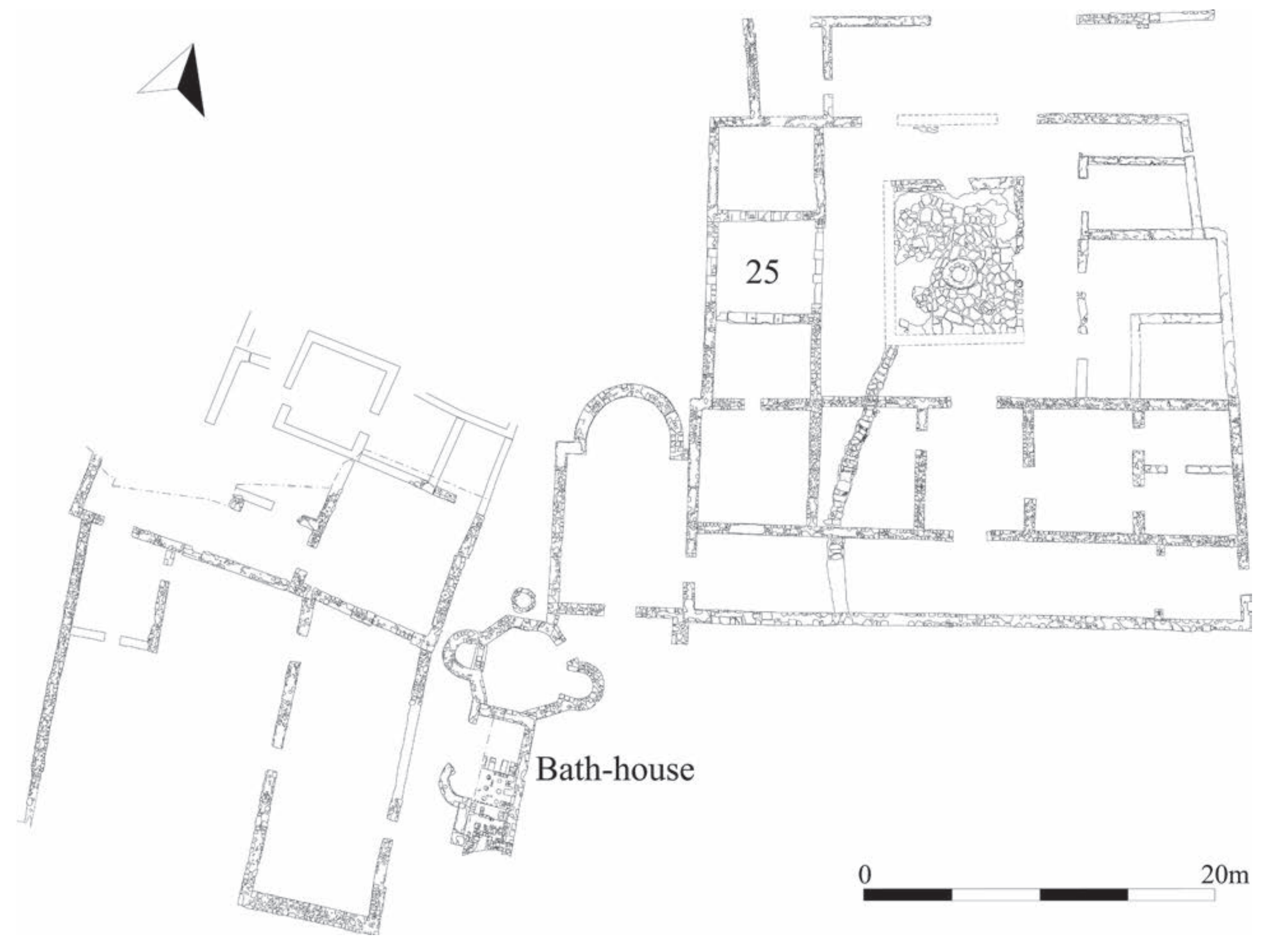


Figure 1.6. Phase 3, showing the peristyle domus and its bath-house

bath-house was also added between the Vivari Channel and the apsidal reception room. The new building phase was at a higher level than that which preceded it, possibly as a response to subsidence caused by seismic activity or problems caused by ground water.

Phase 4 (c. AD 400–20): the Triconch Palace (Fig. 1.7)

Shortly after the construction programme of Phase 3, the *domus* underwent a massive expansion. The earlier peristyle was replaced by a huge new peristyle that extended over the eastern and northern wings of the earlier building. At the same time, the owner was able to expand the building over the adjacent space to the east. This involved the construction of a unified new wing dominated by a large triapsidal room, presumably a reception room or *triclinium*. A double-apsed vestibule gave access from the Vivari Channel to the new eastern portico of the peristyle, while a northern entrance allowed access from the town side.

This grandiose scheme was seemingly never finished as the northern and eastern porticoes were never paved, while the mosaics of the western and southern porticoes of the smaller early peristyle remained in place. No trace of floors or wall decoration has been identified in the new eastern wing and it is possible that parts of the complex remained unroofed.

Phase 5 (c. AD 420–50): post-built structures and other domestic occupation) (Fig. 1.8)

Following the apparent abandonment of the Triconch Palace as a prestige residence, parts of the building were used for smaller-scale domestic and industrial purposes. These phases were most intensively investigated on the western and southern wings of the building. In particular, the western part of the building maintained an overall coherence with a dwelling focused around the former colonnaded western entrance (Room 25) and clearly involving Rooms 23 and 26 which contained hearths and *in-situ* storage *pithoi* or *dolia*. A hearth was inserted in the former long gallery (Room 18), which was subdivided with wooden partitions. The apsidal reception room (Room 24), peristyle courtyard and western portico remained free of build-up in this period and the impression is of a unified complex, albeit lacking the grandeur of the earlier buildings.

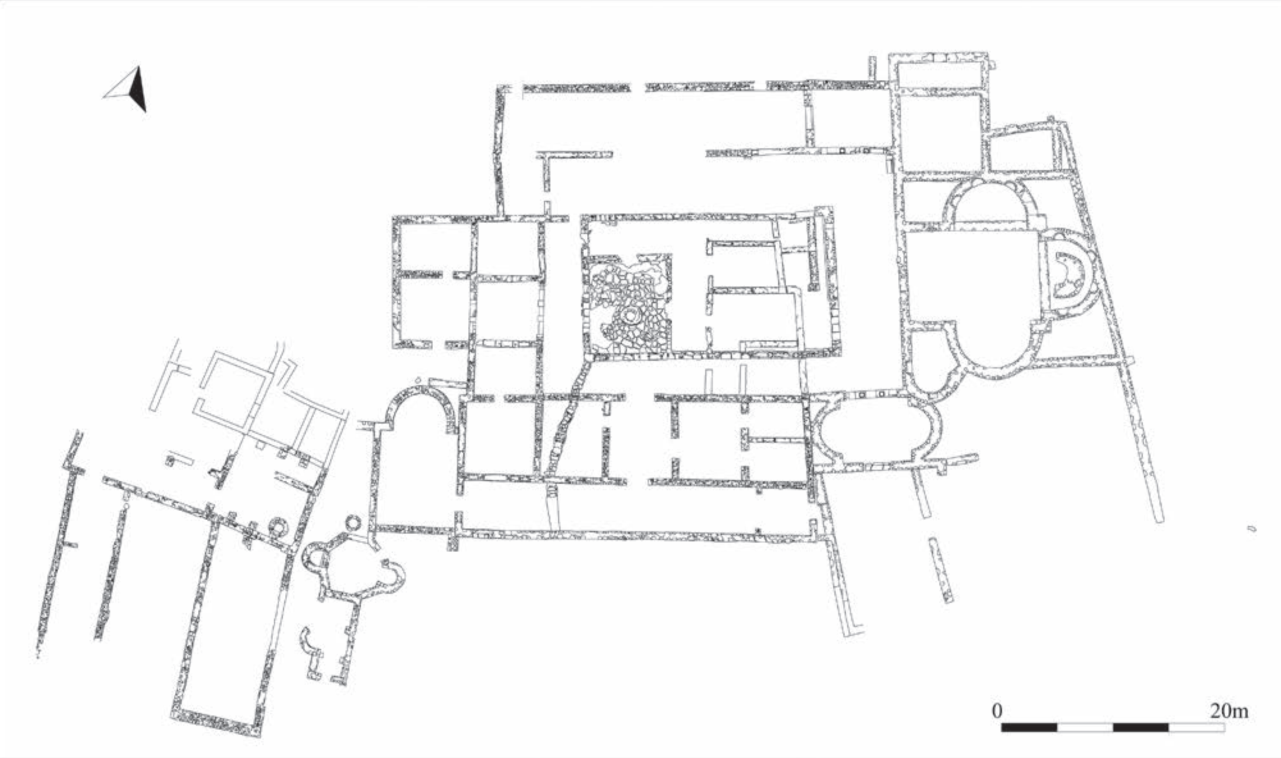


Figure 1.7 Phase 4, showing the Triconch Palace in its final phase as an aristocratic residence

Comparable activity was noted in the Merchant's House area, where a series of utilitarian surfaces (dated to AD 400–50) were noted within the earlier buildings (Room 37). A well or cistern head within the same structure is also likely to belong to this period. These activities can only be placed within a broad period covering Phases 3–5 and are thus partly contemporary with the more grandiose phases of the *domus* and Triconch Palace to the east.

Phase 6 (mid- to late 5th century): possible flooding and other occupation (Fig. 1.9)

From around AD 450, the west wing of the Triconch Palace continued to be occupied for domestic purposes, with the insertion of further partition walls, hearths and an extraordinary circular structure within Room 27 (tentatively interpreted as a food storage structure with a suspended floor). In the south wing, occupation is less clearly defined but deposits of sterile silt within the long gallery (Room 18) may represent an episode of flooding. A large mortar mixer in Room 21 may also date to this phase. As in the first half of the 5th century, the apsidal reception room (Room 24), peristyle and porticoes remained largely free of deposition, although a thin layer of silt built up in the southern portico, reinforcing the impression of a coherent domestic complex in this period.

Similar occupation was noted in the Merchant's House area, where the most striking development was the construction (or reinforcement) of an upper floor level (indicated by a series of masonry piers in Room 37). The ground floor of Room 37 was also surfaced using fragments of marble wall veneers and substantial storage *pithoi* were set into the corners of the room. Occupation in Room 37 apparently ends *c.* AD 475. Elsewhere in this area a further series of utilitarian floors was inserted into some of the earlier structures (Room 47).

Phase 7 (early 6th century): construction of the city wall, partial reoccupation of the southern wing, roof collapse/demolition, and abandonment of the Merchant's House (Fig. 1.10)

The most significant event in this period was the construction of the city wall, which seems to have occurred around AD 525. The wall seemingly takes a dog-leg around the Merchant's House and Triconch Palace complex, possibly suggesting that the owner(s) had some influence on its design. The section of wall in front of the Merchant's House also included a substantial gate allowing continued access to the Vivari Channel. The wall, however, incorporated some sections of the Merchant's House structures, while the remainder were demolished around this time. A second gate lay slightly to the east of the triconch complex.

The intensive domestic activity in the west wing of the Triconch Palace also ceased at this point, and the rooms of the west wing became filled with dumps of broken tile. The absence of complete tiles suggests demolition rather than collapse, with the tiles that remained representing those that could not be salvaged. This dump of tiles also extended into the western portico. At the same time a thick

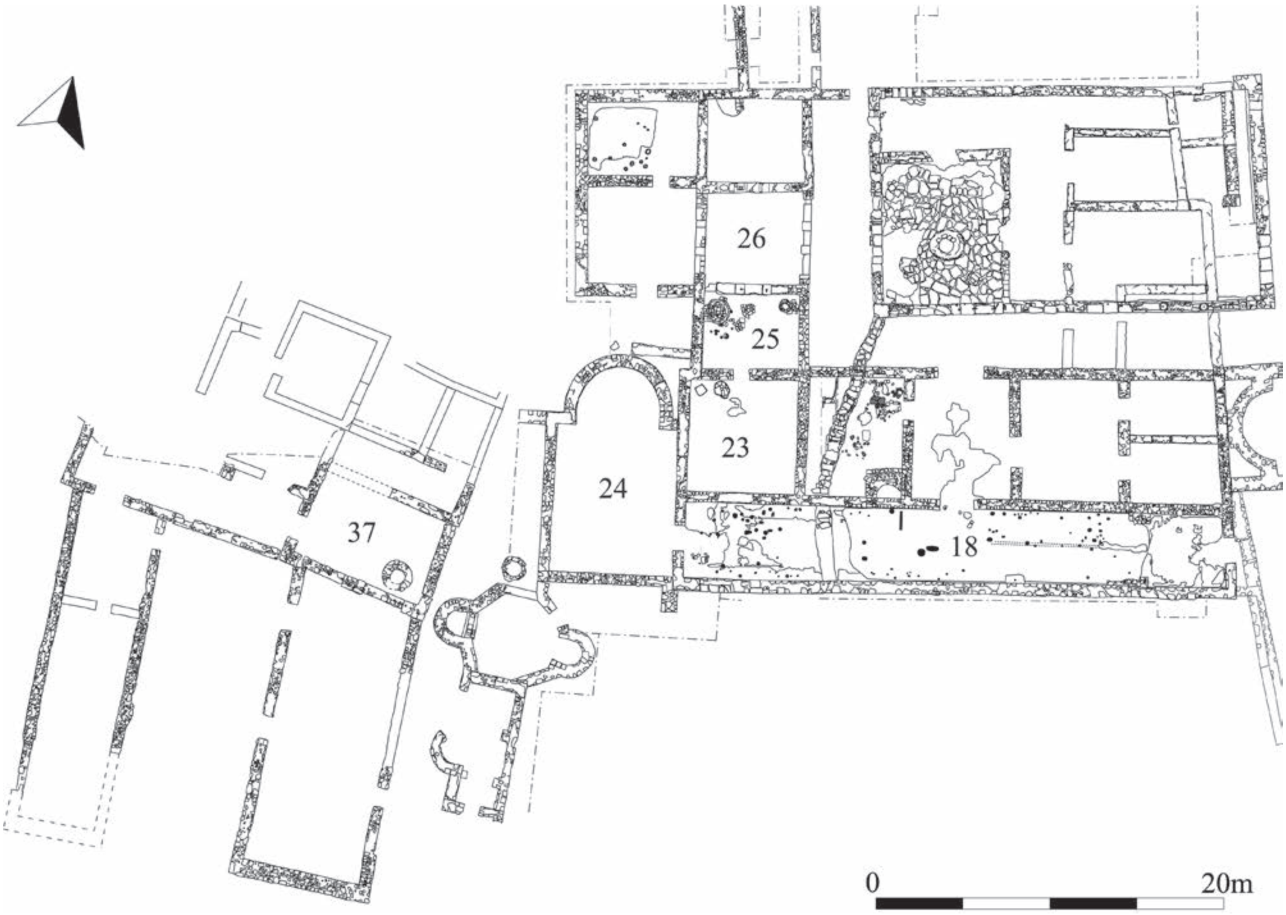


Figure 1.8. Phase 5, highlighting rooms noted in text

layer of grey clay developed above the mosaic pavements of the apsidal reception room (24). In the long gallery of the southern wing (Room 18), however, there were signs of reoccupation including pits and post-holes and a masonry stair-block indicates the construction of a two-storey building within the eastern end of the long gallery. Rooms 19 and 20 in the southern wing also contained rudimentary floors dating to this period.

Phase 8 (c. AD 525–50): fishing, blacksmiths, burials and demolition (Fig. 1.11)

The Triconch Palace area does not seem to have been permanently occupied in this period, with much of the activity relating to intermittent use of the area by fishermen (and women), who used the area presumably because of its easy access to the Vivari Channel (via the gates in the city wall). Mussels were landed here, cooked and shelled in large quantities, with the result that thick deposits of mussel shells developed in the southern wing and in front of the gate in the Merchant's House area. At the same time, blacksmiths were using the apsidal reception room (24). The succession of hearths constructed within the apse over a short space of time led to the suggestion that this use may have been seasonal.

Other parts of the complex, particularly the west wing and the Merchant's House, were apparently quarried for building materials during this phase, while the excavated parts of the north wing contained a midden with huge quantities of ceramics. This dump of material also spread into the courtyard and the east portico.

Finally, the first burials occurred prior to AD 550, with two infant burials (one in an amphora and one in a tile-built grave) in Room 20 and a single burial in an amphora in Room 29.

Phase 9 (c. AD 550–75): industrial activity and a new two-storey building (Fig. 1.12)

In the second half of the 6th century, a new two-storey building (Room 40) with a tile roof was erected in the angle of the city wall on the west side of the Merchant's House area, using the city wall itself to form two sides of the building. A masonry stair-block suggested an external staircase leading up to a projecting balcony supported by post-holes. The function of this building is not clear but its position could suggest a semi-official or military purpose.

The south wing of the Triconch Palace complex continued to be used for blacksmithing, evidenced by multiple furnaces in the long gallery (Room 18) and further furnaces in Rooms

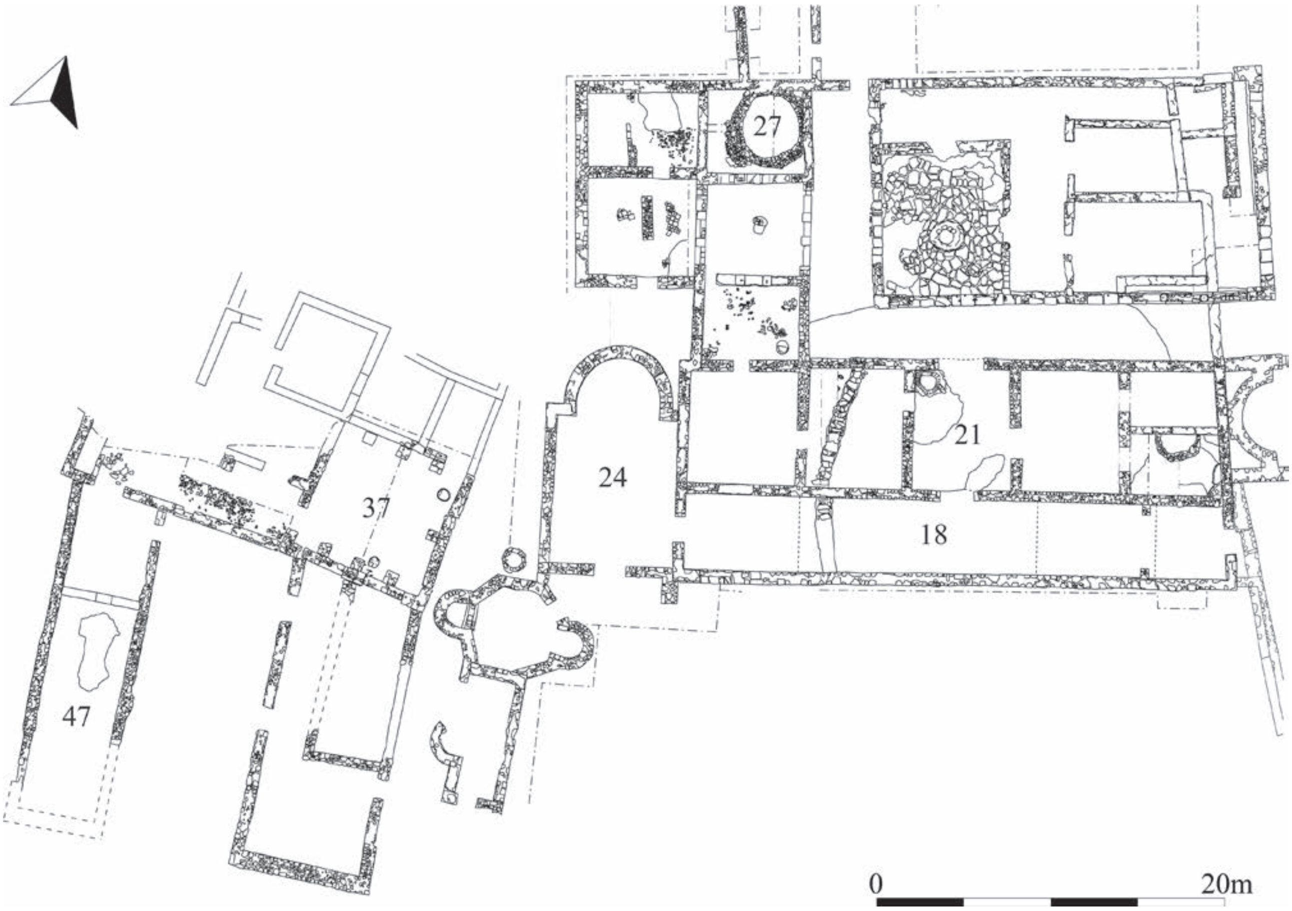

27
21
24
37
18
47
0
20m

Figure 1.9. Phase 6, highlighting rooms noted in text

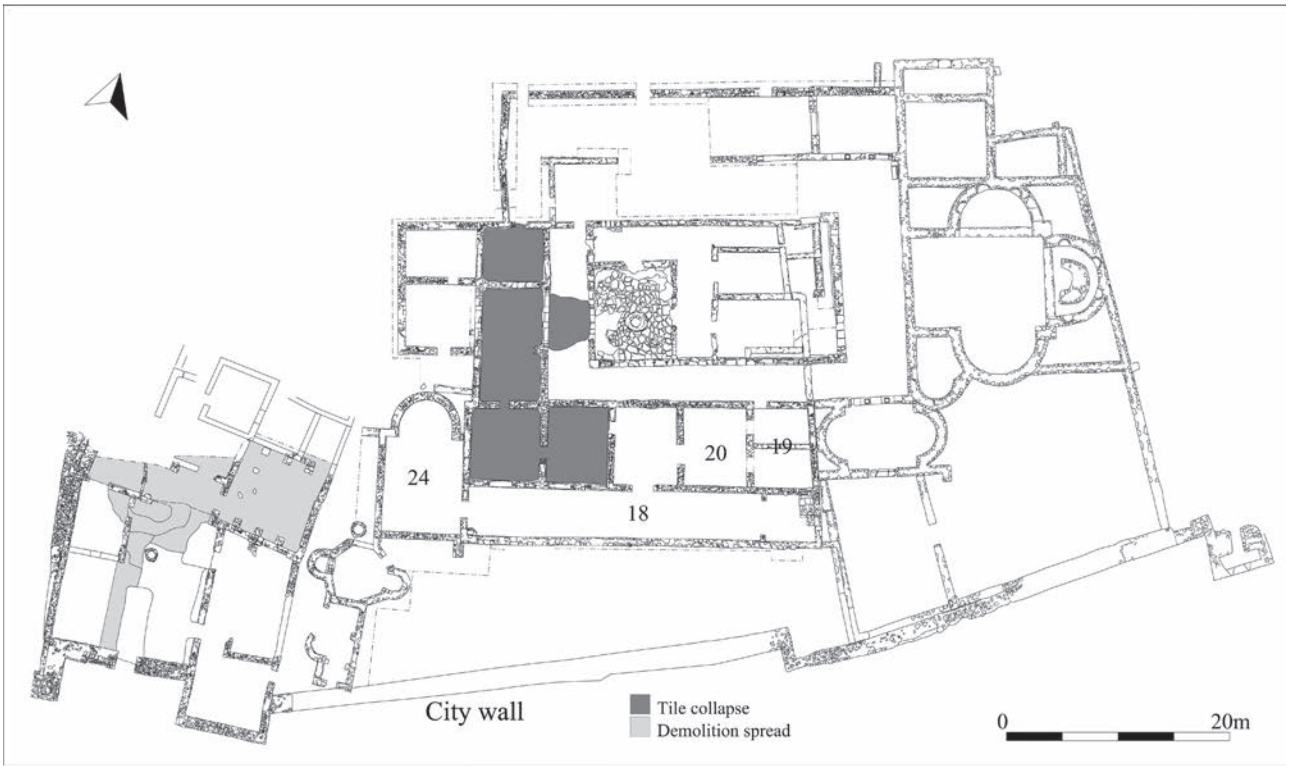

20
19
24
18
City wall
Tile collapse
Demolition spread
0
20m

Figure 1.10. Phase 7, showing the city wall, areas of roof collapse and demolition and rooms noted in the text

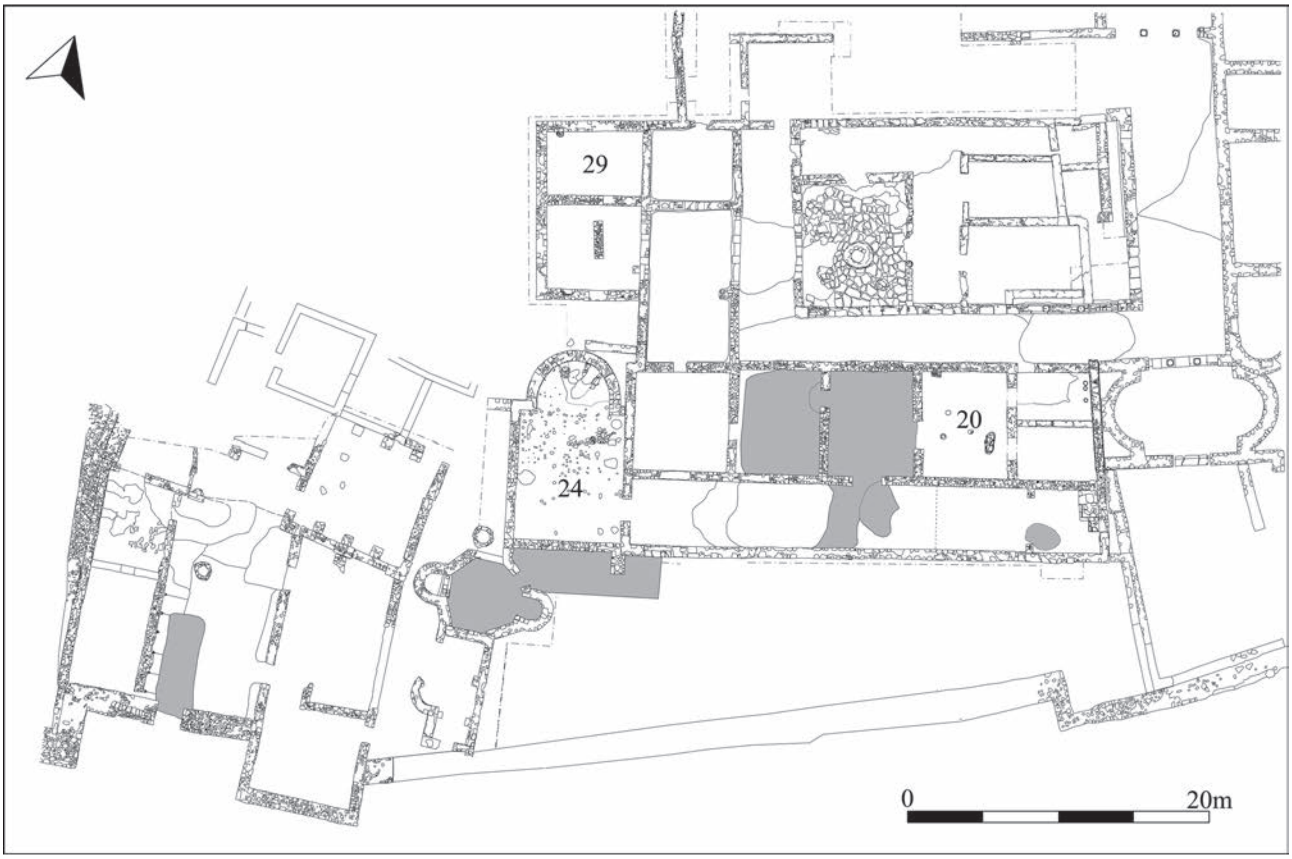

29
20
24
0
20m

Figure 1.11. Phase 8, showing areas of deposition of mussel shells and rooms noted in the text

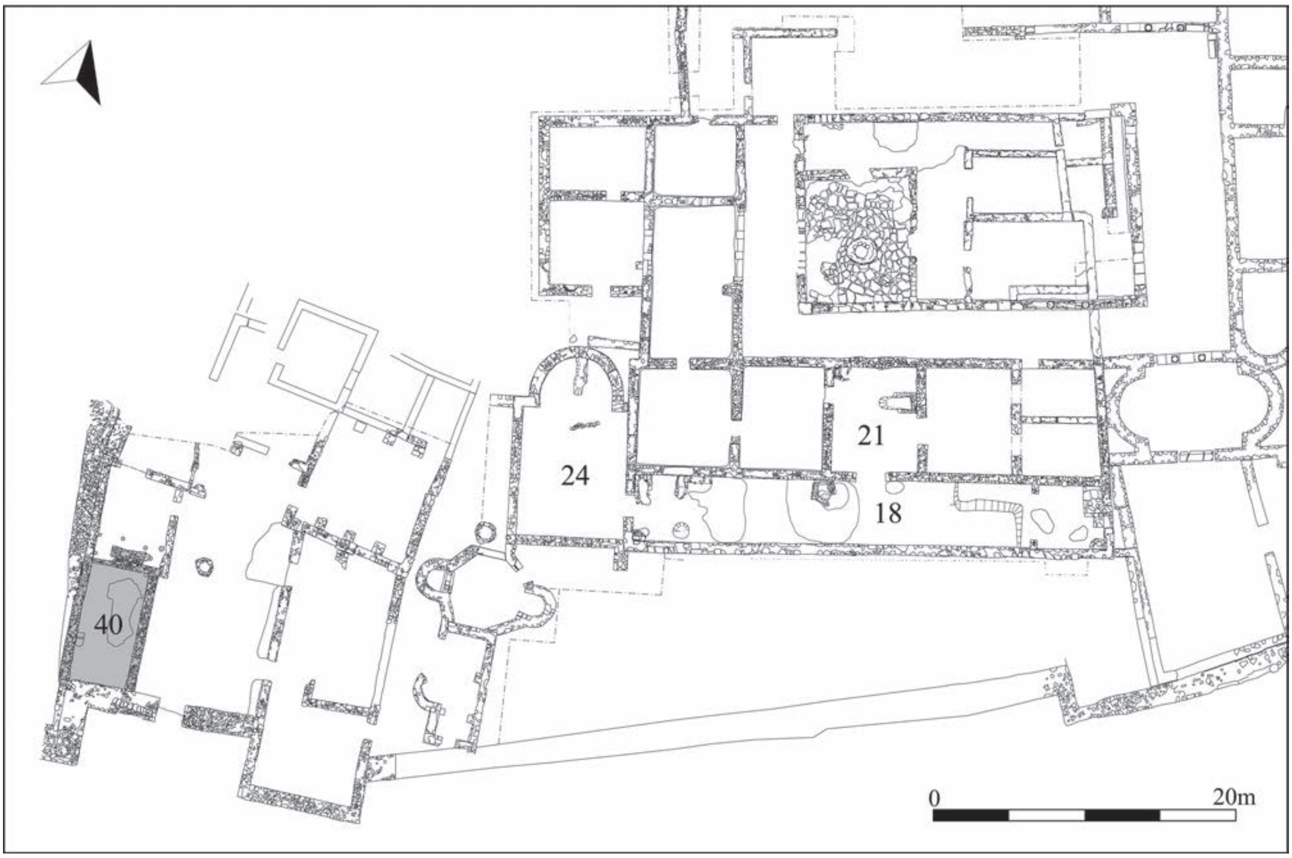

21
24
18
40
0
20m

Figure 1.12. Phase 9, showing location of two-storey building in Room 40 and other rooms noted in the text

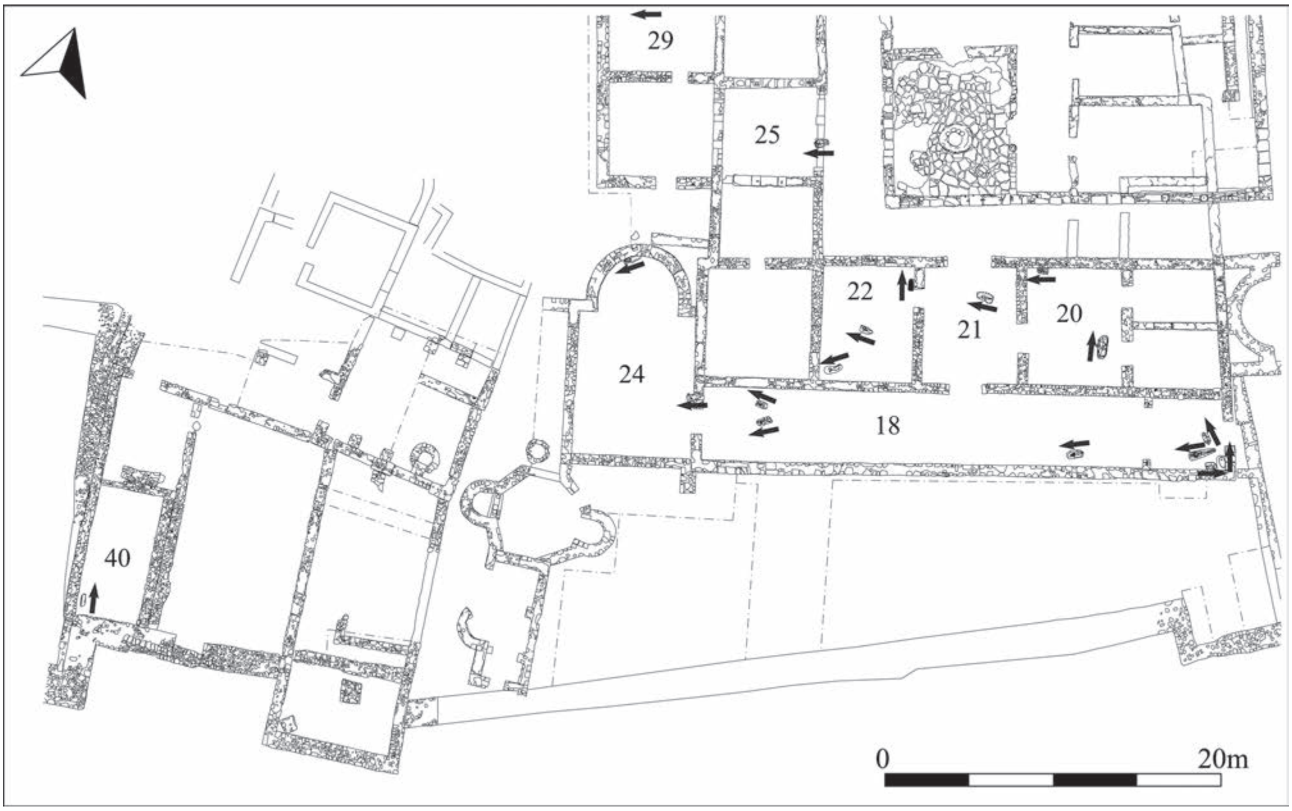


Figure 1.13. Late antique burials in the Triconch Palace and Merchant's House (Phases 9–10)

21 and 24. Analysis of the waste (see Chapter 5) indicates highly specialised metalworking was being practised, with the presence of multiple furnaces perhaps suggesting that this was being done on a seasonal basis.

Phase 10 (late 6th to early 7th century): burials, demolition and collapse of the two-storey building (Fig. 1.13)

The late 6th and 7th centuries saw continued demolition and robbing of masonry across the triconch area, together with the insertion of burials (mainly of children) in Rooms 18, 22, 23 and 25. Some evidence of continued occupation was noted in Room 20. It is likely that this sequence of burial extends from the mid-6th century, with the small numbers of burials indicating that it is episodic and involving a small group, rather than representing the regular burial place of a substantial community (see Chapter 4).

During the last quarter of the 6th century, the two-storey building went out of use and its roof collapsed (indicated by a thick deposit of largely complete tiles). The area in front of the gate in the city wall continued to be used for the cooking and shelling of mussels, indicated by several hearths and deposits of shells.

Phase 11 (mid-7th to early 10th century): mussel processing and minimal activity

There is little sign of early medieval occupation in the triconch area, an impression reinforced by the discovery of coherent 8th- and 9th-century phases elsewhere in Butrint that give us a clearer idea of the material culture of the town in this period. Very small quantities of residual early medieval pottery found in the courtyard area could suggest some sort of activity in the courtyard in this period.

Mussel processing may have continued in the Merchant's House area, as at least part of the huge midden of mussel shells that developed in front of the gate in the city wall probably dates to this period, indicated by two 9th-century coins of Basil II and a single complete cooking pot of 8th- to 9th-century date found within this deposit. This deposition certainly continued into Phase 12.

Phase 12 (early to late 10th century): renewed occupation, building and burial (Fig. 1.14)

During the 10th century, there was renewed occupation of the triconch area with new post-built structures erected over the west wing and the south wing. The late 9th to 11th century also saw renewed burial, with groups of inhumations noted in the north wing (Rooms 14 and 17) and the south wing (Rooms 23 and 28). There was also renewed activity in Room 19, with the erection of a substantial post-built structure that may also have reused the walls of the Roman building. Other, less-substantial structures were erected in Rooms 25, 27 and 31 in the west wing. It is possible that a tiled floor in part of the former *triclinium*

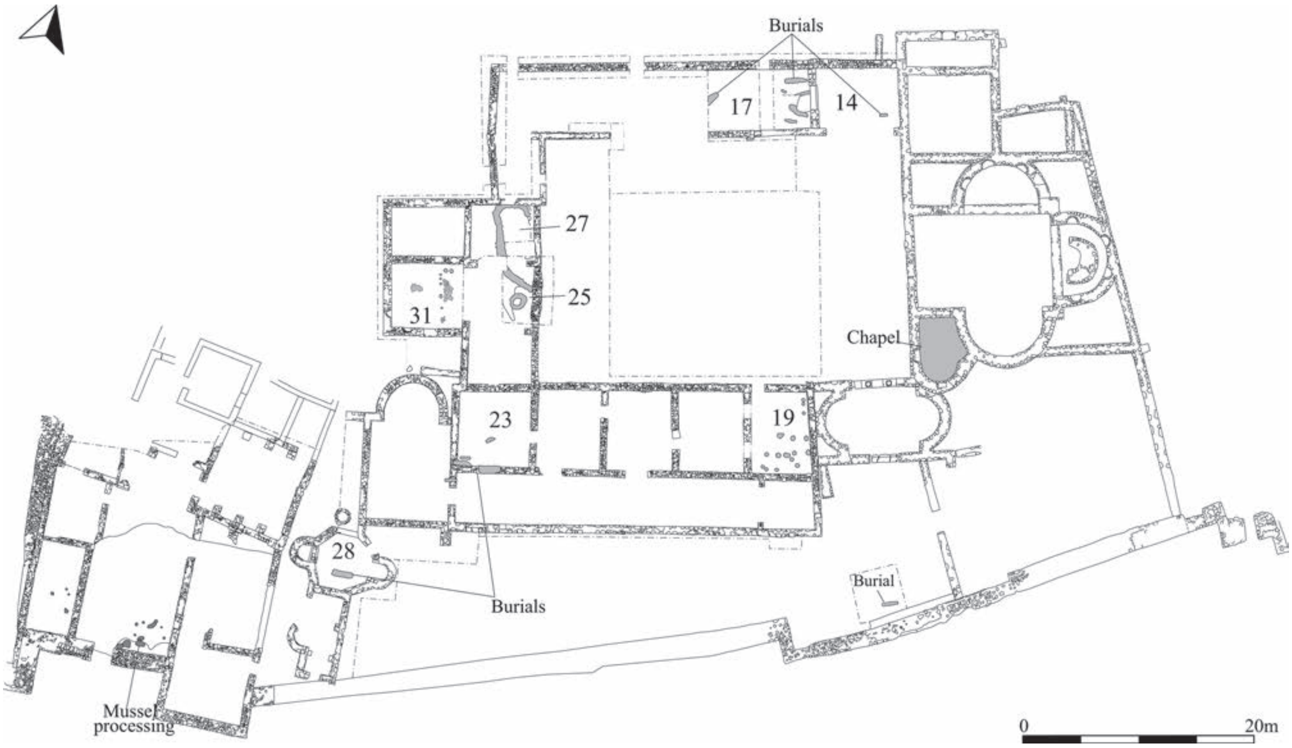


Figure 1.14. Phase 12, showing areas of renewed occupation and burial and other rooms noted in the text

may belong to this phase, perhaps associated with the reuse of this part of the building as a chapel.

From the early 10th through to the late 12th century the central courtyard area saw the build-up of humic soils and rubble deposits. This deposition continued until the 16th century, but the majority of finds belong to the 10th to 12th centuries, suggesting that this was the principal period of activity. This material may derive from occupation of the triconch area itself but it is also possible that it was deliberately dumped here to reclaim the area adjacent to the channel that was affected by seasonal flooding.

The Merchant's House area saw less activity in this period apart from continued processing of mussels in front of the gate in the city wall.

Phase 13 (early 11th to late 12th century): new post-built structures (Fig. 1.15)

Although dating of these structures is far from secure, this period saw the erection of substantial post-built structures across the remains of the south and west wings of the Triconch Palace. The walls of the Roman buildings were probably at more or less their present height as some of the post-holes were cut into the levelled wall tops. These buildings (which partly belong to the latter part of Phase 12) were noted in Rooms 18, 19, 22, 23, 24, 25, 26 and 31, with that in Room 19 apparently an oval dry-stone structure. The courtyard was seemingly free of structures, although as noted above, there was continued deposition of material through Phases 12 and 13.

Similar structures were noted in the Merchant's House area, including a sturdy post-built structure erected above the foundations of the mid 6th-century building built in the angle of the city wall (Room 40). A less-coherent structure (or structures) was also built on the eastern side of the area in front of the gate in the city wall. At the same time, the area immediately inside the gate was formalised with a cobbled surface. This was possibly the start of a road running from the gate towards the city, flanked by timber buildings on either side.

Phase 14 (13th to 14th century): the blocking of the gate, burials and reduced activity (Fig. 1.16)

During the 13th century the gate in the city wall was blocked, severing the link with the Vivari Channel that had shaped activities in this area for over 1000 years. A similar blocking of the gate to the east of the triconch area may also date to this period. This was followed by the development or deposition of around 1m of black humic soils across the Merchant's House area, with the uppermost levels containing material as late as the 16th century. Around the 14th century a small number of graves were inserted on the western side of the area, close to the city wall (Room 40). All were significantly damaged, probably by cultivation, which seems to have been a factor in the development of the thick humic soils noted above.

Around the end of the 14th century, a new tower was built on the city wall adjacent to the former gate, probably as part of the repair of the fortifications documented in Venetian sources for this period.

The triconch area seems to have seen significantly

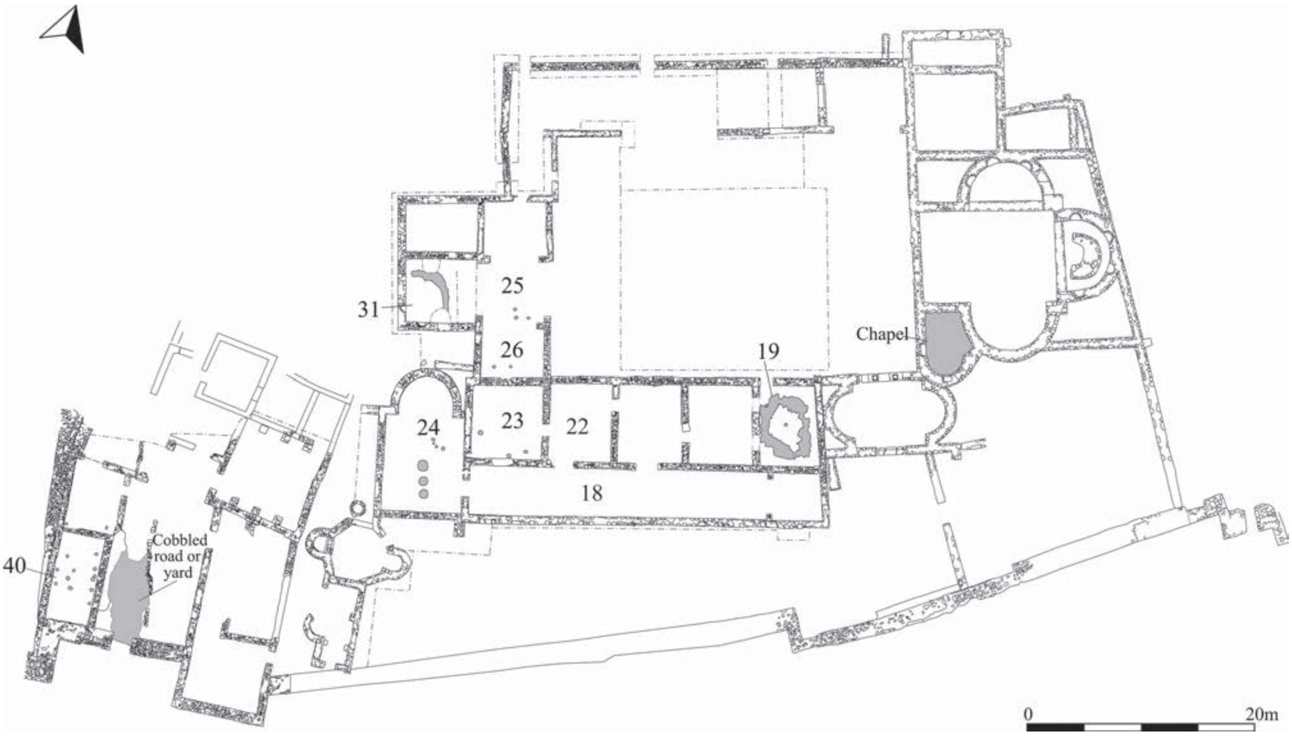

25
26
31
24
23
22
18
19
Chapel
40
Cobbled road or yard
0
20m

Figure 1.15. Phase 13, showing rooms featuring new post-built structures (often cut into the tops of earlier Roman walls)

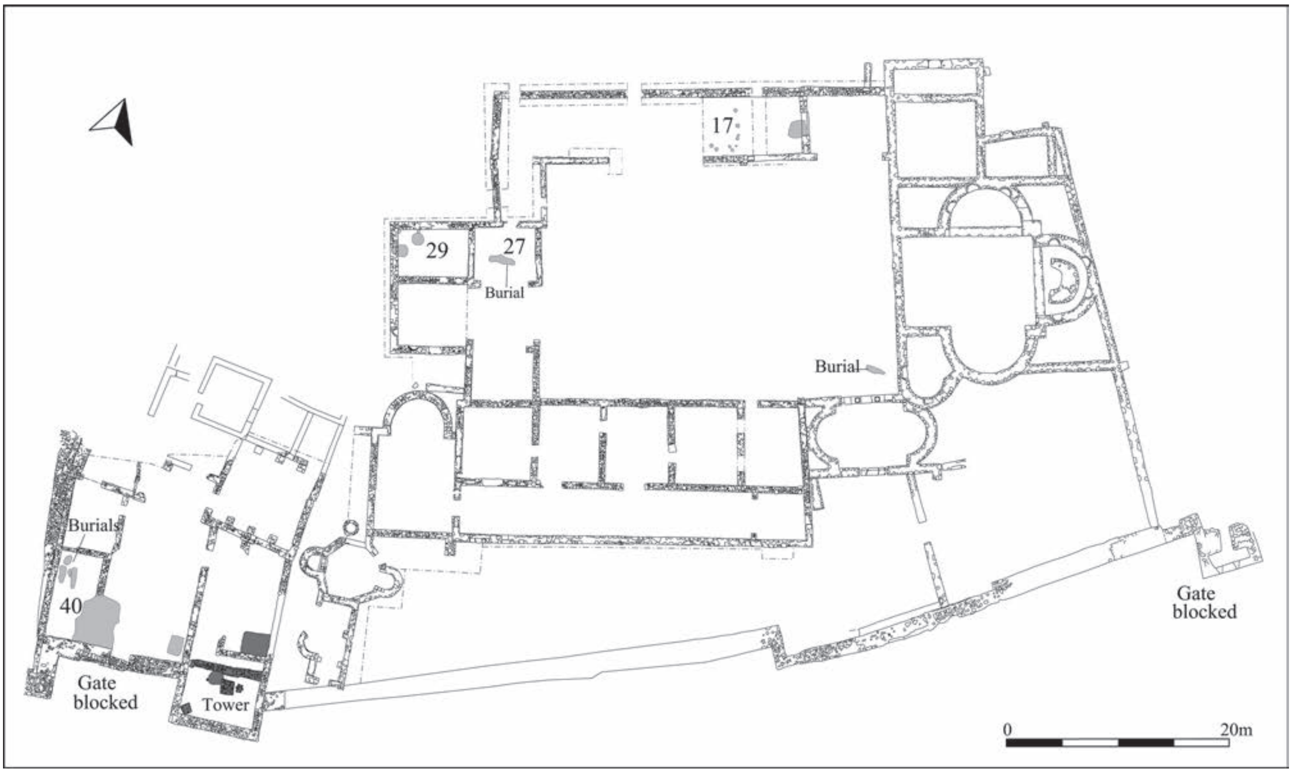

17
29
27
Burial
Burial
Burials
40
Gate blocked
Tower
Gate blocked
0
20m

Figure 1.16. Phase 14, showing blocking of gates, the new tower and other areas of activity

reduced activity in this period, although a large rubbish-filled pit in the north wing attests to nearby domestic occupation, perhaps associated with a post-built structure in Room 17. Isolated burials in the east portico and the west wing of the earlier building may also date to this period, as well as limited activity in Rooms 27 and 29.

Phase 15 (15th century and later) cultivation and dumping of refuse

Activity during the 15th and 16th centuries seems to be concentrated in the Merchant’s House area and may well be associated with occupation of the tower noted above, although this seems to have been in a state of collapse by the end of the 16th century. Thereafter finds are sporadic, as activity at Butrint dwindled to a small nucleus around the Triangular Castle and the Venetian Tower that protected the fisheries and the Vivari Channel.

The archaeological sequence and the material evidence

Although the titles of this volume and that which details the excavated sequence give primacy to the grandiose residence of *c.* AD 420, very little of the material discussed in this volume relates directly to the Triconch Palace or the smaller *domus* that preceded it. Instead it belongs to the periods that follow the abandonment of the Triconch Palace building project. There are several obvious reasons for the lack of evidence relating to the occupation of the Triconch and the *domus*.

First, the nature of high-status domestic living means that rubbish is rarely left within the building itself. The detritus of a dinner party will not be left in the *triclinium* for the archaeologist to find it. Instead it will normally be transported away from the house by domestic servants or slaves and disposed of elsewhere. Second, at the moment of its abandonment, it is unlikely that the owners were in residence given that much of the house was under construction. There was no sudden Pompeii-style catastrophe as far as can be discerned and thus all movable fixtures and fittings would probably have been removed by the owners or by others. Finally, the nature of Roman archaeology itself will preclude understanding of the deposits and material that predates the Triconch Palace as archaeologists are (understandably) reluctant to remove standing remains and mosaic pavements to reach the underlying levels. Indeed, even in areas not encumbered by structural remains, reaching early levels was largely precluded by the high water table. Excavating these would have required logistical support (in the form of pumps and coffer dams) and the facilities to conserve and offer long-term storage to waterlogged finds.

In terms of material, therefore, there is very little that is earlier than the 5th century and even that (for example some of the coins) derives from deposits of the 5th century and later. However, in some respects this is an opportunity to examine the archaeological evidence in a way that is unencumbered by the mores of classical archaeology. It is possible to look at the people who were living in this part of the Mediterranean over the arc of a thousand years from the 5th century until the 15th and allow them to play a greater part than simply being the largely invisible inhabitants of a world formed by architecture and its decoration.

While there is little in the way of material relating to the Triconch Palace and the contemporary late Roman buildings in the Merchant’s House, it is nonetheless striking how these structures shaped the lives of those who inhabited and used this area over the following centuries. While writing and editing the reports on the excavated sequences in Bowden and Hodges 2011a (summarised above), was very conscious of, perhaps anachronistically, continuing to define areas of the site using terminology that related to the late Roman aristocratic residences (Triconch Palace, Merchant’s House, south wing, west wing etc).[1] However, it is clear that the spatial arrangements of the late Roman period continued to affect the ways in which the site was used until the later Middle Ages.

Perhaps the clearest example of this is the way that the peristyle courtyard of the Triconch Palace (first defined as a central space in the 3rd or 4th century if not before) continued to be utilised in such a way until the late 12th century. Throughout this period, the archaeological deposits attest to the existence of a space partly defined by the walls of the Roman buildings, even when these buildings had been largely levelled to their foundations, although the actual use of the space varied significantly over time. The peristyle remained free of deposition and seemingly in use as a courtyard throughout the 5th century, while the west and south wings of the *domus* continued to be occupied as a coherent dwelling. Even after the buildings had been partly demolished, their remains continued to act as the focus of habitation, with the different rooms partly reused for occupation, industrial activity or burial. The depositional sequence in the courtyard remains different through the 10th to 12th centuries, when post-built structures occupied the former south and west wings of the *domus,* while the courtyard was used for the dumping of a rich sequence of material that perhaps attests to the lifestyles of those who lived in the buildings that surrounded it.

The same differentiation of space can be seen in the slightly varying trajectories of the Merchant’s House and Triconch Palace areas, which were perhaps shaped by their respective relationships with the Vivari Channel. The Merchant’s House maintained direct access to the channel-side until the 13th century and it is this access that may have influenced the differences between the two areas that can sometimes be detected, for example in the second half of the 6th century, when the erection of a well-constructed two-storey building in the Merchant’s House area contrasts with the episodic industrial activity of the triconch area. These differences between the two areas can also be sensed through their diet and material culture across this 1000-year history and it is this theme that will be picked up again in the concluding chapters.

Note

[1] In this volume the term Triconch Palace is used to refer specifically to the area and buildings of the late Roman palatial *domus*. When referring to the wider area encompassing the Triconch Palace and Merchant’s House, the lower case ‘triconch’ or ‘triconch area’ are used.

2 An investigation of the subsistence base at Butrint: the archaeobotanical evidence

Alexandra Livarda and John Giorgi

Investigation of subsistence practices, dietary regimes and husbandry methods, along with economic and social approaches to the study of primary bio-archaeological data (such as macro-botanical evidence), remain rare in archaeological projects of historic periods in south-eastern Europe. Although the enormous potential of such evidence to add new insights into multiple aspects of everyday life has been shown through more than 40 years of systematic work in northern and north-western Europe (e.g. Bakels *et al.* 1997; Jacomet 2003; Karg 2007; Livarda 2011; Van der Veen *et al.* 2013), this line of evidence has been largely neglected in south-eastern Europe. The Butrint project, however, incorporated environmental sampling as part of a multi-disciplinary approach from the early stages of investigations at the site. This chapter reports on the archaeobotanical material collected during the excavations at the Triconch Palace and the Merchant's House, covering the period between the 5th and the 15th centuries AD, and provides a first attempt for their contextualisation across space and time.

Sampling and processing methods

A sampling strategy was devised aiming at the collection of samples from the greatest range of potentially datable features across the excavated areas. Smaller features were sampled in their totality while samples of between 10 and 20 litres were taken from larger contexts at various locations in order to identify potential different episodes of activity. In total, 121 soil samples were collected from the Triconch Palace and Merchant's House excavations. Of these, 38 samples yielded archaeobotanical macro-remains (i.e. seeds, fruits, etc.) (Table. 2.1).

Processing was carried out using a modified Siraf flotation tank with meshes of 1 mm and 0.25 mm aperture for the retention of the heavy (residue) and light (flot) fraction respectively. All flots were dried, divided into size fractions in order to facilitate their processing, and submitted for analysis together with any archaeobotanical material recovered from residue sorting.

The flots were fully sorted using a stereoscope with magnifications ranging from 7 to 45. Charred plant remains were removed, recorded and fully quantified on the basis of the minimum number of characteristic plant parts, such as embryo ends in the case of cereals. The identification of plant remains was based on morphological criteria with the aid of modern reference material and seed identification manuals (e.g. Jacomet 2006; Cappers *et al*. 2009). Charcoal and other organic remains in the flots were also noted and their abundance was estimated using the following rating system: x = <10 items; xx = 10–100 items; xxx = > 100 items.

Results

A detailed list of the organic material present in each soil sample is provided in Table 2.1 and a summary of the material per time period is given in Table 2.2. Samples without any archaeobotanical material have been excluded.

Archaeobotanical material was present in samples dated to between the early/mid-5th (Phase 5) and 15th century AD (Phase 15). The 5th-century macro-remains recovered from the west wing of the Triconch Palace were consistent with domestic activities, representing cooking or food preparation spillages. A collapsed kiln or oven dated to the early 6th century was sampled from Room 22 in the south wing and yielded a relatively high amount of cereal grains, which may be associated with the use of this feature. This room, however, was covered with a dumped layer of broken tiles (Bowden *et al*. 2011d, 82), and therefore, it is possible that the plant remains may have been incidentally redeposited from other areas within the Triconch Palace. In the next phase (Phase 8: mid-6th century) the area started to be used for burials and the southern wing was used mainly by fishermen, with large spreads of mussel shells becoming common (Bowden *et al*. 2011d, 87). The plant remains recovered from these deposits attest to some cooking activities in the vicinity, possibly for the needs of the fishermen who occupied the area over a long period of time. The grave fills contained secondary material,

Table 2.1. Sample size, contextual and dating information relating to the archaeobotanical macro-remains (continued over the next four pages

	Context	5269	5269	5594	3185	1531	5270	5634	5376
	Area/Room	TP/23 west wing	TP/23 west wing	TP/27 west wing	TP/22 south wing	TP/24 south wing	TP/21 south wing	TP/20 south wing	TP/29 west wing
	Description	contents of *dolium*	contents of *dolium*	black layer	collapsed kiln	pit fill	shelly, mortary and sandy layer	grave fill - skeleton 5641	amphora burial fill
	Phase	5	5	5	7	8	8	8	8
	Dating	early/mid-5th c.	early/mid-5th c.	early/mid-5th c.	early 6th c.	mid-6th c.	mid-6th c.	mid-6th c.	mid-6th c.
	sample vol. (lt)	5	5	5	5	25	5	5	5
Latin name	**common name**								
Cereals	**Cereals**								
Triticum dicoccon Schrank. grain	emmer wheat grain								
Triticum cf. *dicoccon* Schrank. grain	cf. emmer wheat grain								
Triticum aestivum/durum grain	bread/macaroni wheat grain				3				2
Triticum cf. *aestivum/durum* grain	cf. bread/macaroni wheat grain				2		1		2
Triticum sp. grain	wheat grain				4				7
cf. Triticum sp. grain	wheat grain								
Hordeum vulgare L. grain	barley grain							1	5
cf. Hordeum vulgare L. grain	barley grain				2				
Hordeum vulgare L. hulled grain	hulled barley grain								2
Hordeum/Triticum grain	barley/wheat grain								
Avena sp. grain	oat grain								1
cf. *Avena* sp. grain	cf. oat grain			1					1
Panicum miliaceum L. grain	millet grain							2	
Cerealia grain	cereal grain	1	1		6		1	1	4+5fr
Legumes	**Legumes**								
Lens culinaris Medik.	lentil								3
Vicia/Lathyrus sp.	vetch/vetchling								
Legume indet.	legume indeterminate				1	1			
Fruits	**Fruits**								
Ficus carica L.	fig								
Vitis vinifera L.	grape								
Wild	**Wild**								
Polygonum aviculare agg.	knotgrass								1
Caryophyllaceae	pink Family								1
Vicia sp.	vetch								1
cf. Leguminosae small	cf. pea Family								
Sambucus nigra L.	elder								1
Compositae	daisy Family								1
Juncus sp.	rush						3		
Lolium sp.	rye grass								1
Gramineae	grass	1					1		1
Gramineae small	grass small						5		
Bromus sp.	brome								
Carex sp.	sedge								
indet	indeterminate								
TOTAL items	TOTAL items	2	1	1	18	1	11	4	34
DENSITY (items/lt)	DENSITY (items/lt)	0.4	0.2	0.2	3.6	0	2.2	0.8	6.8
Other organic remains in the flots									
charcoal fragments		xxx	x	xxx	x	xx	xx	xx	xxx
modern vegetation (root/seed)		xx	xxx	xxx	xxx	xxx	x	x	xxx
land snails		x	xx	xx		xxx	xx	x	xx
marine molluscs					x	x			
fish remains			x	x		x			x
small mammal bone		x							x
indet. bone									xx
insect/beetle remains		x	x	x					x

	Context	5089	5277	1546	5072	3180	2053	2052	5319
	Area/Room	TP/18 south wing	TP/21 south wing	TP/24 south wing	TP/18 south wing	TP/22 south wing	TP/16 courtyard	TP/16 courtyard	TP/27 west wing
	Description	kiln fill	kiln fill	amphora burial fill	grave fill	well fill	compacted 'surface'	deposit	grave fill - skeleton - chest
	Phase	9	9	10	10	12/13	13/14	13/14	14
	Dating	mid/late 6th c.	mid/late 6th c.	late 6th/7th c.	late 6th/7th c.	10th to 12th c.	11th to 14th c.	11th to 14th c.	early 13th/14th c.
	sample vol. (lt)	5	10	5	5	10	5	5	5
Latin name	**common name**								
Cereals	**Cereals**								
Triticum dicoccon Schrank. grain	emmer wheat grain								
Triticum cf. *dicoccon* Schrank. grain	cf. emmer wheat grain		1						
Triticum aestivum/durum grain	bread/macaroni wheat grain							1	
Triticum cf. *aestivum/durum* grain	cf. bread/macaroni wheat grain		1					1	
Triticum sp. grain	wheat grain		2					1	
cf. Triticum sp. grain	wheat grain					1			
Hordeum vulgare L. grain	barley grain								
cf. Hordeum vulgare L. grain	barley grain								
Hordeum vulgare L. hulled grain	hulled barley grain								
Hordeum/Triticum grain	barley/wheat grain					1	2		
Avena sp. grain	oat grain								
cf. *Avena* sp. grain	cf. oat grain								
Panicum miliaceum L. grain	millet grain							1	
Cerealia grain	cereal grain		2+5fr		1	2		3	
Legumes	**Legumes**								
Lens culinaris Medik.	lentil								
Vicia/Lathyrus sp.	vetch/vetchling								
Legume indet.	legume indeterminate								
Fruits	**Fruits**								
Ficus carica L.	fig								
Vitis vinifera L.	grape								
Wild	**Wild**								
Polygonum aviculare agg.	knotgrass								
Caryophyllaceae	pink Family								
Vicia sp.	vetch								
cf. Leguminosae small	cf. pea Family	1							
Sambucus nigra L.	elder								
Compositae	daisy Family								
Juncus sp.	rush			7					
Lolium sp.	rye grass								
Gramineae	grass		2	3					1
Gramineae small	grass small								
Bromus sp.	brome								
Carex sp.	sedge			1					
indet	indeterminate			1					
TOTAL items	TOTAL items	1	8	12	1	4	2	7	1
DENSITY (items/lt)	DENSITY (items/lt)	0.2	0.8	2.4	0.2	0.4	0.4	1.4	0.2
Other organic remains in the flots									
charcoal fragments		x	xxx	xx	xxx	xx		xx	xx
modern vegetation (root/seed)		xx	x	xx	xx	xxx	xxx	xxx	xxx
land snails		xx	xx	xxx	x	xx			x
marine molluscs									x
fish remains			x						x
small mammal bone					x	x			
indet. bone								x	
insect/beetle remains		x	x	x	x				x

	Context	5319	1560	4018	4055	4145	4086	4131	3074
	Area/Room	TP/27 west wing	TR/25 west wing	MH/37	MH/37	MH/38	MH/43	MH/43	MH/38
	Description	grave fill - by feet	stone structure fill	occupation layer	Fill of *pithos*	grave	fill of post-hole	fill of post-hole	shell-rich deposit
	Phase	14	15	6	6	8 –9	9	9	11–12
	Dating	early 13th/14th c.	15th c.	mid/late 5th c.	mid/late 5th c.	6th c.	mid/late 6th c.	mid/late 6th c.	8th/9th c.
	sample vol. (lt)	5	5	20	10	35	10	5	10
Latin name	**common name**								
Cereals	**Cereals**								
Triticum dicoccon Schrank. grain	emmer wheat grain					1			
Triticum cf. *dicoccon* Schrank. grain	cf. emmer wheat grain		2						
Triticum aestivum/durum grain	bread/macaroni wheat grain								
Triticum cf. *aestivum/durum* grain	cf. bread/macaroni wheat grain		2						
Triticum sp. grain	wheat grain		11			2			
cf. Triticum sp. grain	wheat grain								
Hordeum vulgare L. grain	barley grain		1						
cf. Hordeum vulgare L. grain	barley grain								
Hordeum vulgare L. hulled grain	hulled barley grain								
Hordeum/Triticum grain	barley/wheat grain				1				
Avena sp. grain	oat grain								
cf. *Avena* sp. grain	cf. oat grain								
Panicum miliaceum L. grain	millet grain					3			
Cerealia grain	cereal grain		2+19fr	4	1	6		1	1
Legumes	**Legumes**								
Lens culinaris Medik.	lentil								
Vicia/Lathyrus sp.	vetch/vetchling								
Legume indet.	legume indeterminate				1				
Fruits	**Fruits**								
Ficus carica L.	fig								
Vitis vinifera L.	grape	1					1		
Wild	**Wild**								
Polygonum aviculare agg.	knotgrass								
Caryophyllaceae	pink Family								
Vicia sp.	vetch								
cf. Leguminosae small	cf. pea Family								
Sambucus nigra L.	elder								
Compositae	daisy Family								
Juncus sp.	rush	2							
Lolium sp.	rye grass								
Gramineae	grass								
Gramineae small	grass small	2	1						
Bromus sp.	brome					1			
Carex sp.	sedge								
indet	indeterminate	1							
TOTAL items	TOTAL items	6	19	4	3	13	1	1	1
DENSITY (items/lt)	DENSITY (items/lt)	1.2	3.8	0.2	0.3	0.4	0.1	0.2	0.1
Other organic remains in the flots									
charcoal fragments		x	x	xxx	xxx	xxx	xxx	xxx	xx
modern vegetation (root/seed)		xx	x	xxxx	xxxx		xx	xxx	xxx
land snails		x	xx						x
marine molluscs		x			x			x	xxx
fish remains		x							x
small mammal bone									
indet. bone		x		xx	x			x	x
insect/beetle remains									x

	Context	3295	3284	4007	3249	4063	4067	3353	3269
	Area/Room	MH/39	MH/39	MH/39	MH/39	MH/40	MH/40	MH/40	MH/40
	Description	pit fill	fill of post-hole	hearth	oven demolition	fill of post-hole	fill of post-hole	hearth	fill of flue
	Phase	12	12	12	13a	13a	13a	13b	13b
	Dating	10th c.	10th c.	10th c.	early 11th/12th c.	early 11th/12th c.	early 11th/12th c.	12th/early 13th c.	12th/early 13th c.
	sample vol. (lt)	10	10	10	5	10	10	5	5
Latin name	**common name**								
Cereals	**Cereals**								
Triticum dicoccon Schrank. grain	emmer wheat grain								
Triticum cf. *dicoccon* Schrank. grain	cf. emmer wheat grain		1						
Triticum aestivum/durum grain	bread/macaroni wheat grain								
Triticum cf. *aestivum/durum* grain	cf. bread/macaroni wheat grain								
Triticum sp. grain	wheat grain								1
cf. Triticum sp. grain	wheat grain								
Hordeum vulgare L. grain	barley grain								
cf. Hordeum vulgare L. grain	barley grain	1							
Hordeum vulgare L. hulled grain	hulled barley grain								
Hordeum/Triticum grain	barley/wheat grain								
Avena sp. grain	oat grain								
cf. *Avena* sp. grain	cf. oat grain								
Panicum miliaceum L. grain	millet grain								
Cerealia grain	cereal grain		1	1		2	1	1	
Legumes	**Legumes**								
Lens culinaris Medik.	lentil								
Vicia/Lathyrus sp.	vetch/vetchling								
Legume indet.	legume indeterminate								
Fruits	**Fruits**								
Ficus carica L.	fig								
Vitis vinifera L.	grape								
Wild	**Wild**								
Polygonum aviculare agg.	knotgrass								
Caryophyllaceae	pink Family								
Vicia sp.	vetch								
cf. Leguminosae small	cf. pea Family								
Sambucus nigra L.	elder				1				
Compositae	daisy Family								
Juncus sp.	rush								
Lolium sp.	rye grass				1				
Gramineae	grass								
Gramineae small	grass small								
Bromus sp.	brome								
Carex sp.	sedge								
indet	indeterminate								
TOTAL items	TOTAL items	1	2	1	2	2	1	1	1
DENSITY (items/lt)	DENSITY (items/lt)	0.1	0.2	0.1	0.4	0.2	0.1	0.2	0.2
Other organic remains in the flots									
charcoal fragments		xxxx	xxx	xxx	xxx	xxx	xxx	xxx	xxxx
modern vegetation (root/seed)		xx	xxx	x	xxx	xxx	x	x	xxx
land snails		x	xx		xx				
marine molluscs			xx	x			xx		
fish remains			x						
small mammal bone							x		x
indet. bone				x		x	x		
insect/beetle remains					x				

	Context	3281	3007	2084	3021	3092	3278
	Area/Room	MH/40	MH/39	MH/39	MH/39	MH/45	MH
	Description	fill of post-hole	fill of mortar mixer	cultivation soil	cultivation soil	cultivation soil	cultivation soil
	Phase	13a/14a	14a	14/15	14/15	14/15	14/15 or earlier
	Dating	early 11th to 14th c.	13th/14th c.	13th to 15th c.	13th to 15th c.	13th to 15th c.	unknown
	sample vol. (lt)	10	5	5	5	5	10
Latin name	**common name**						
Cereals	**Cereals**						
Triticum dicoccon Schrank. grain	emmer wheat grain						
Triticum cf. *dicoccon* Schrank. grain	cf. emmer wheat grain						
Triticum aestivum/durum grain	bread/macaroni wheat grain						
Triticum cf. *aestivum/durum* grain	cf. bread/macaroni wheat grain						
Triticum sp. grain	wheat grain						
cf. Triticum sp. grain	wheat grain		1				
Hordeum vulgare L. grain	barley grain						
cf. Hordeum vulgare L. grain	barley grain						
Hordeum vulgare L. hulled grain	hulled barley grain						
Hordeum/Triticum grain	barley/wheat grain				1		
Avena sp. grain	oat grain						
cf. *Avena* sp. grain	cf. oat grain						
Panicum miliaceum L. grain	millet grain			1			
Cerealia grain	cereal grain	1				2	1
Legumes	**Legumes**						
Lens culinaris Medik.	lentil						
Vicia/Lathyrus sp.	vetch/vetchling	1					
Legume indet.	legume indeterminate						
Fruits	**Fruits**						
Ficus carica L.	fig						1
Vitis vinifera L.	grape						
Wild	**Wild**						
Polygonum aviculare agg.	knotgrass						
Caryophyllaceae	pink Family						
Vicia sp.	vetch						
cf. Leguminosae small	cf. pea Family						
Sambucus nigra L.	elder						
Compositae	daisy Family						
Juncus sp.	rush						
Lolium sp.	rye grass						
Gramineae	grass						
Gramineae small	grass small						
Bromus sp.	brome						
Carex sp.	sedge						
indet	indeterminate						
TOTAL items	TOTAL items	2	1	1	1	2	2
DENSITY (items/lt)	DENSITY (items/lt)	0.2	0.2	0.2	0.2	0.4	0.2
Other organic remains in the flots							
charcoal fragments		xxx	xxx	xxx	xxx	xxx	xx
modern vegetation (root/seed)		xx	xxx	xxx	xxx	xxx	x
land snails							x
marine molluscs						xx	
fish remains							
small mammal bone							
indet. bone		x	x			x	
insect/beetle remains							

which do not seem to represent residues from offerings but rather the remains of other activities that were taking place nearby. The burial amphora of an infant in Room 29 included the richest assemblage of plant remains with density of 6.8 items per litre of processed soil, although the total amount of items was still fewer than 50. It contained a variety of charred plant remains, high amounts of charcoal, fish and small bones, indicating some cooking and/or food consumption in the vicinity. Two more grave and burial fills were sampled from Phase 10 and they showed a similar picture of secondary plant intrusions with no evidence for charring of plant remains as part of a ritual.

The medieval occupation at the Triconch Palace area revealed a similar picture to that of the late antique period. Samples were taken from Phases 12 to 15 but the stratigraphy was highly disturbed (Bowden *et al*. 2011b, 118) and no primary deposits have been found, so any botanical evidence should be treated with caution. In a Phase 12/13 sample, taken from a well, plant remains indicate once again domestic activities related to food preparation. Samples from the central courtyard in the following periods present the same overall picture of sparse food remains, in this case exclusively of cereals, which could suggest food preparation activities taking place in the open area or dumping and mixing of material from other parts of the triconch area. The secondary fills of the grave sampled from Room 27, dated to Phase 14, are almost void of botanical material, containing mostly some charred wild plants from the surrounding environment that could have been incorporated accidentally as part of fuel/kindling used nearby. All later medieval deposits are poor in food plant remains, possibly reflecting reduced human activity in the area, with the exception of a 15th-century sample that contained some more cereals.

The Merchant's House complex, although clearly separate from the Triconch Palace area that lies directly to its east, included the same range of crops in low numbers, representing secondary assemblages from mostly food preparation activities. The picture remained the same throughout the late antique and medieval periods, and across all sampled rooms, with only a grave fill containing some more cereals, which nevertheless may be secondary material (Table 2.1). It is possible that the large amount of both intrusive and residual material across the whole of this area (Bowden *et al*. 2011a, 203) has contributed to this uniform picture of food plant-related activities.

The plant remains across the two areas were overall few in number but diverse, including cereals, legumes, fruits and a suite of wild species, although cereal grains clearly dominate. Regarding cereals, only grains were found. Both free-threshing (*Triticum aestivum/durum*) and emmer wheat (*Triticum dicoccon* Schrank.) were positively identified, the latter in a 6th-century grave fill, and possibly in a kiln or oven fill of the same period (Phase 9) and in later fills of Phases 12 and 15. Millet (*Panicum miliaceum* L.) appears for the first time in two 6th-century grave fills. Barley (*Hordeum vulgare* L.) and oat (*Avena* sp.) complement the cereal repertoire at this site. The latter was positively identified in a secondary deposit of a burial amphora together with a rich variety of food and wild plants although the absence of florets meant that it was not possible to determine whether the oat was cultivated or wild.

Pulses were rarely present with only a few identified as lentil (*Lens culinaris* Medik.), a common Mediterranean species and typical companion of wheat and barley in Mediterranean agriculture (Zohary and Hopf 2000, 94; Prance and Nesbitt 2005, 144). Edible fruits included grape (*Vitus vinifera* L. and fig (*Ficus carica* L.), both of which rank among the most common fruits of the Mediterranean basin since the prehistoric period. Grape occurs for the first time in a 6th-century fill of a post-hole in Room 43 in the Merchant's House area, but it has also been found in a later 13th/14th-century grave fill from the Triconch Palace area. There were also remains of elder (*Sambucus nigra* L.), which occurs naturally in the Mediterranean environment, its fruits are also edible.

Discussion

The archaeobotanical assemblage from the Triconch Palace and Merchant House complex was fairly mixed and similar to that of the Vrina Plain settlement (Table 2.3; Livarda 2019). The nature and context of all samples from both sites suggest that they were secondary deposits, including in most cases food refuse, prepared and/or consumed nearby, that was scattered on the ground and became accidentally incorporated into the floor surfaces and the soil that entered into different deposits and containers. The various grave fills presented a similar picture to other contexts across the two sites and there are no indications that they represent the residues of food or other deliberate offerings. Some of the wild species, such as certain grasses that occur alongside food plants, may have been weeds of cultivation that remained with the crop and were later thrown into the fire following cleaning. Other wild species may have been charred either accidentally or deliberately as part of fuel/kindling, together with larger wood pieces as indicated by the presence of substantial amounts of charcoal fragments in several samples.

Overall, there seem to be no significant differences in the subsistence base of the various inhabitants or visitors throughout the different periods of the Vrina Plain settlement and the Triconch Palace/Merchant's House complex, although mixing of the material due to disturbance is a possibility for various parts of the Butrint excavations. Both sites show a similar picture of a diverse diet, based on several cereals, legumes and typical Mediterranean fruits.

Some differences between the two sites can be observed, although they need to remain tentative. Bitter vetch was found only at the Vrina Plain settlement whereas lentil, emmer and oat have only been identified at the Triconch complexes (Tables 2.2 and 2.3). Of interest also is the complete absence of cereal chaff from both sites. Taphonomic reasons may

Table 2.2. Presence of plant remains across time at Butrint, including data from the Triconch Palace and Merchant's House (e=early; m=middle; l=late; med=medieval; u=unknown; X= presence; cf=possible presence)

Period *Plant remains*	*5th*	*Early 6th*	*Mid-6th*	*Mid–late 6th*	*6th*	*8th–9th*	*Early 11th–12th*	*12th–early 13th*	*13th–14th*	*15th*	*Medieval (11th–15th)*	*Unphased*
Free-threshing wheat (*Triticum aestivum/durum*)		X	X	cf						cf	X	
Emmer (*Triticum dicoccon* Schrank.)				cf	X					cf		
Wheat (*Triticum* sp.)		X	X	X	X			X	cf	X	X	
Barley (*Hordeum vulgare* L.)		cf	X							X		
Oat (*Avena* sp.)	cf		X									
Millet (*Panicum miliaceum* L.)			X		X						X	
Cereal indeterminate	X	X	X	X	X	X	X	X		X	X	X
Lentil (*Lens culinaris* Medik.)			X									
Legume	X	X	X					X				
Fig (*Ficus carica* L.)												X
Grape (*Vitis vinifera* L.)				X					X			
Wild (various)	X		X	X	X		X		X	X		

e=early; m=middle; l=late; med=medieval; u=unknown; X= presence; cf=possible presence

Table 2.3. Presence of plant remains across time at Vrina Plain (e=early; m=middle; l=late; X= presence)

Period *Plant remains*	*2nd–mid-3rd*	*Mid–late 3rd*	*Early 5th*	*Late 5th–early 6th*	*Early–late 6th*	*7th–early 9th*	*Mid-9th–10th*	*Late 10th–11th*	*11th–12th*	*Late 12th–13th*
Free-threshing wheat (*Triticum aestivum/durum*)		X								X
Wheat (*Triticum* sp.)				X						X
Barley (*Hordeum vulgare* L.)				X						X
Millet (*Panicum miliaceum* L.)										X
Cereal indeterminate		X	X	X					X	X
Bitter vetch (*Vicia ervilia* (L.) Willd.)				X						
Legume		X		X					X	X
Fig (*Ficus carica* L.)				X						
Grape (*Vitis vinifera* L.)				X		X				
Wild (various)	X	X	X	X	X	X	X	X	X	X

e=early; m=middle; l=late; X= presence have played a part in the lack of chaff, as rachis fragments and glume bases have generally fewer chances of survival compared to cereal grains during charring (Boardman and Jones 1990). Alternatively, processing of cereals might have been taking place elsewhere across the area, or crops may have been brought onto the sites in a generally clean state. This last assertion may be consistent with other commercial and industrial activities, such as fish-processing and blacksmithing, as identified for instance at the Triconch site, although the faunal remains show that animals were almost certainly butchered and processed on site. There remains the possibility that designated processing areas on site have not been located and/or sampled.

Of the food plants, cereals, and in particular free-threshing wheat which has good bread-making qualities, appear to be the most recurrent species. Emmer, which was found only at the Triconch Palace/Merchant's House complex, is a glume wheat that differs to the free-threshing variety in that it requires more processing and it is often stored in its glumes which act as a protective layer against pests and adverse conditions (Jones *et al.* 1986). It could have added culinary variety because while it is not as good for making leavened bread, it could have been used in different recipes, including soups, groats or flat bread. Hillman (2011) reports that in modern-day Europe, western and central Asia, emmer is still grown and favoured as a high-quality cracked wheat. Further culinary variety is implied by the availability of various other cereals that can be used in different recipes, providing different flavours, such as barley, which is used for instance in rusks, and millet.

On-going archaeobotanical work at other parts of Butrint within the framework of the Forum excavations has revealed a similar overall picture so far. Large amounts of free-threshing wheat were recovered from a late medieval burnt house in use until the 16th century, as well as barley, millets, and oat in lower numbers (Sabato *et al.* 2013 and pers. comm.). Glume wheats, such as einkorn (*Triticum monococcum* L.) and emmer, may be present in low numbers but their identification is still in progress and remains to be finalised (Sabato pers. comm.). Other areas sampled during this project have also provided archaeobotanical remains but in lower quantities (Sabato *et al.* 2013). As also seen at the Vrina settlement and the Triconch House/Merchant's House complex, no chaff has been found in these assemblages yet, although some weeds of cultivation are present. The Forum excavations have yielded also a variety of legumes, including mostly Spanish vetchling (cf. *Lathyrus clymenum* L.) in the later medieval layers, and fruits (*ibid*.).

The usage of glume wheats (emmer and einkorn), barley and lentil has been testified at various other sites in modern-day Albania (Allen and Gjipali 2014) and south-eastern Europe since the Neolithic period, while evidence for free-threshing wheat and common millet has also been reported from prehistoric sites of the broader area (for a review see e.g. Kroll 1991; Xhuveli and Scultze-Motel 1995; Valamoti 2009). A few Bronze and Iron Age archaeobotanical studies from Albania exist. In particular, the site of Sovjan, located at the edge of Lake Maliq in the southern part of the country, and dated to the early Bronze to early Iron Age period, has yielded one of the richest published assemblages so far. At Sovjan all main food plants that were found at the later site of Butrint, such as free-threshing wheat, emmer, millet, barley, oat, lentil, fig and elder, have been recovered among other species (e.g. Fouache *et al.* 2001; Léra *et al.* 2001).

Archaeobotanical studies from the late antique and medieval periods are rare in the Balkan area, and south-eastern Europe in general, but in most of the available ones, free-threshing wheat seems to be the most recurring and usually dominant wheat type with a secondary but persistent presence of glume wheat (e.g. Kroll 1991; Popova and Marinova 2000; Borojević 2005; Grinter 2007). In Albania, archaeobotanical remains dated to these periods have only been reported from a few samples from the site of Grunas but these were generally poor, including only a cereal grain that could not be identified to species level and low numbers of wild species and fruits (Galaty *et al*. 2013). Overall, the usage of food plants at Butrint seems to follow the basic, long-term culinary tradition in the broader area, although the absence of statistically significant quantities of the material from the Vrina settlement and the Triconch Palace/Merchant's House complex deters attempts to track potential changes in the use and value of the various food plants. The completion of archaeobotanical work in other areas of Butrint may shed more light on these matters in the future.

Concluding remarks

The excavations at Butrint have provided the first substantial primary evidence for a variety of food plants utilised in southern Albania from the 2nd/3rd century AD to the late medieval period. The archaeobotanical assemblage reported here so far hints at a rather typical eastern Mediterranean diet during all periods, although the lack of rich data does not allow insights into the potential employment of the various food plants in different agronomic regimes. The low occurrence of food plants may be partly a consequence of taphonomic, preservation, and sampling factors, but it seems also to be consistent with the occasional use of the Triconch Palace and the Merchant's House area for small-scale domestic, commercial and industrial activities and their often long periods of abandonment during the study period. Similarly, at the Vrina Plain settlement, the periods of abandonment and the occasional religious character of the site (Greenslade 2013; 2019) could have played a part in the absence of substantial food preparation evidence. No significant dietary differences with regards to, at least basic, food plants were observed between the sites sampled, notwithstanding their different functions and status. The data from the Butrint project, despite their limitations, can be used as a reference point and a basis upon which future archaeobotanical work in the area can be built to provide a more comprehensive understanding of past economies and societies. This is particularly important given that archaeobotany in modern-day Albania is still in its infancy and archaeobotanical evidence for the late antique and medieval period in south-eastern Europe is generally limited.

3 The faunal remains

William Bowden, Zoe Knapp, Adrienne Powell and James Westoby

Introduction

A large assemblage of animal remains was recovered during the Triconch Palace excavations. The assemblage contained 17,566 fragments, 14,934 of which could be attributed to 480 stratified contexts, ranging in date from the 3rd to the 15th century AD. An overview of the assemblage is provided here, building on the interim statement in Powell (2004), but the information provided by these animal bones could be further exploited, particularly as the assemblages from other excavated areas at Butrint are brought to publication. This report will present a summary of dietary practices and husbandry regimes during the Roman/late antique and medieval occupation of the two main areas of the site – the Triconch Palace and the so-called Merchant's House. The intention is to look at over-arching trends through time, charting any visible changes and indications of shifts in consumption and exploitation of animals, including the utilisation of the abundant wild resources of Butrint's lacustrine hinterland. Comment will also be made on how patterns in the faunal remains relate to the changes that are also apparent in other aspects of the archaeological record, a theme that is developed in Chapters 10 and 11.

Methods

The faunal remains were examined, identified and recorded by Adrienne Powell.[1] All of the material was recorded during the excavation seasons, using 10 or 20 hand lenses as necessary. The faunal material was recorded following a modified version of the Cardiff Osteoarchaeology Research Group (CORG) methodology (see Mulville 2005, 40–1). Not all skeletal elements are recorded in this methodology. Of loose skull fragments, only maxillae comprising at least two teeth, mandibles, zygomatics, occipitals, horn cores, antlers and nasals were recorded. All teeth were recorded when complete enough to be identified to species. The astragalus, calcaneum and navicular-cuboid were the only carpals and tarsals that were recorded unless articulating groups were identified, in which case all elements were recorded. Element completeness was recorded following the eight-zone method of Serjeantson (1996) in which a zone is recorded if 50% is present, and elements are only recorded if at least one such zone is present. Almost all elements were recorded to species whenever possible, with the exception of the ribs and cervical, thoracic and lumbar vertebrae (except for the atlas and axis) which were identified to the level of small, medium or large mammal. Ribs were only counted when parts of the vertebral articulations were present (zones 1–3, Serjeantson 1996). Similarly, vertebral specimens were only counted as identifiable if 50% of the centrum was present. Special effort was made to identify cervids and caprines to exact species. Goats and sheep were distinguished following Boessneck (1969) and Payne (1987), alongside guidance from Zeder and Pilaar (2010) and Zeder and Lapham (2010). Red deer and fallow deer specimens were identified using the criteria of Lister (1996) with additional use of the deer bone database (https://www.nottingham.ac.uk/zooarchaeology/deer_bone/) to assist with metrical discrimination. In addition, bones of domestic fowl (*Gallus gallus*) that could be distinguished clearly from pheasant (*Phasianus colchicus*) and guinea fowl (*Numida meleagris*) (MacDonald 1992) were recorded as domestic fowl, whilst others are recorded as probable identifications. Bird bones were extracted, imported to the UK and identified by Adrienne Powell using the University of Southampton reference collection. Fishbone was extracted and will be analysed in an overall report detailing fishbone recovered from all the Butrint excavations..

Within this report the areas of the Triconch Palace and Merchant's House are considered separately for frequency, but the two areas are combined when considering age, body part patterns and metrics to increase the sample sizes to allow the data to be considered by phase. Given the tightly dated stratigraphic sequence from the site, it was considered important to study the material by phase, even if this resulted in relatively small sample sizes for some phases. Absolute quantities are noted in all cases.

Table 3.1. The faunal assemblage from the Triconch Palace showing NISP (Number of Identified Specimens) by phase (stratified contexts only)

TAX/PHASE	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**12/13**	**13**	**13/14**	**14**	**15**	**Grand Total**
Caprine	5		3	20	47	57	85	99	314	105	154	8	99	57	116	1169
Sheep			2	4	10	11	10	31	81	20	48		46	15	38	316
Goat	3		2	6	14	14	17	33	78	30	43	3	26	5	32	306
Pig	16	2	15	32	122	113	98	82	301	147	408	5	189	140	277	1947
Cattle	10		1	15	21	19	21	23	132	32	161	4	122	53	151	765
Total	*34*	*2*	*23*	*77*	*214*	*214*	*231*	*268*	*906*	*334*	*814*	*20*	*482*	*270*	*614*	*4503*
Equid	1					1		1	7	2	1		8		3	24
Horse														1	2	3
Dog	1			2			1		2	2					2	10
Cat							1	1							1	3
Red Deer				2	6	1	1	3	3	5	8	1	5	2	3	38
Roe Deer			1	2	3	3	5	1	10	6	9		10	2	5	57
Fallow Deer											2		1		2	8
Red/Fallow Deer	2			1	8	2	6	4	9	7	11		9		6	64
Cervid								1								1
Wild Boar	2			1	1				3	1	8		5	2	9	32
Hare	1				3	11	2	2	1	1	1				1	23
Hare/Rabbit											1					1
Rabbit									1							1
Hare size					1	1										2
Tortoise/Turtle								1			2				1	4
Fish					14	10	25	14	9	8	5	2			9	96
Amphibian			1													1
Other Rodent				1	9		2	1								13
Sheep size	4		3	2	50	32	55	30	59	45	67	7	23	38	33	448
Cattle Size	5	1		6	6	5	9	9	37	12	49		30	14	36	219
Unid Mammal	45	6	24	127	297	212	337	488	625	250	532	23	331	272	387	3956
Domestic Fowl				5	16	27	16	10	10	12	2			3	1	102
Fowl/Pheasant/Guinea Fowl	1			6	49	45	25	19	15	11	9	1		6	6	192
Pheasant					1	1	1									3
Swan										1						1
Coot						2				1					1	4
Curlew								1		1						2
Chicken Size					3	1	1	2	1							8
Pigeon/Teal/Woodcock Size														1		1
Duck (Mallard Size)					3	1	2	1	1	1					1	10
Goose Size (or larger)					1	1				1						3
Crow/Rook			1													1
Small Galliform																0
Greylag/Domestic Goose						1	1									2
Domestic fowl/Guinea fowl															1	1
Unid Bird					1	13		4	8	1	11	1		10	8	57
Total bird	*1*		*1*	*11*	*74*	*92*	*46*	*37*	*35*	*29*	*11*	*1*		*10*	*18*	*366*
Overall total	96	9	53	232	686	584	721	861	1707	702	1521	54	904	621	1132	9883

The assemblage

The assemblage consisted of a total of 14,926 fragments attributable to phased contexts, of which 8496 (57%) were identifiable to species or size group (see Tables 3.1 and 3.2). It is likely that the relatively high proportion of identifiable material may be due, in part, to the methods of excavation. No dry sieving was carried out on site, therefore smaller fragments, which are inherently less identifiable, would have been less likely to be recovered.

The material spanned 15 identified phases of activity

Table 3.2. The faunal assemblage from the Merchant's House showing NISP (Number of Identified Specimens) by phase (stratified contexts only)

TAX/PHASE	**2**	**3**	**5**	**6**	**7**	**8**	**9**	**10**	**12**	**13**	**14**	**14/15**	**15**	**Total**
Caprine	7		12	9	20	103	4	9	12	114	71	85	94	540
Sheep			2	4	2	28		2	5	23	14	19	18	117
Goat	2		4	10	10	29		7	5	17	8	6	19	117
Pig	3	1	20	25	23	119	7	20	16	120	75	93	159	681
Cattle	2		4	2	4	48		2	3	73	44	77	94	353
Total	*14*	*1*	*42*	*50*	*59*	*327*	*11*	*40*	*41*	*347*	*212*	*280*	*384*	*1808*
Equid			1			1				2	3	4	5	16
Horse											1	1		2
Dog						2					1	7		10
Canid														0
Cat								2					1	3
Wild Boar						1			1	1	1	5		9
Cerviid													1	1
Roe Deer					1	5				5	6	8	1	26
Fallow Deer										1	4	6	4	15
Red Deer			2			2		1		3	1	2		11
Red/Fallow			1			2		2		9	9	14	9	46
Hare Size													1	1
Hare/Rabbit													1	1
Hare						1	1						1	3
Amphibian Unid										6				6
Fish				1	6	11	1	1	1	5	5		3	34
Tortoise/Turtle			2								1	1	3	7
Other rodent				1					4	1			1	7
Sheep Size	1	1	3	7	11	31	1	8	6	21	26	23	34	173
Cattle Size		1	3	2		11		2		19	8	18	12	76
Unid mammal	39	2	10	22	102	486	42	55	184	499	300		914	2655
Domestic Fowl			1	3	8	3		2	1	3	3		3	27
Fowl/Pheasant/Guinea Fowl	1			3	10	23	1	6	1	3	2		14	64
Galliform													1	1
Peacock													2	2
Swan						1								1
Coot					2			2	1	2	2			9
Chicken Size				1	2	1	1		1		1		2	9
Pigeon/Teal/Woodcock Size						2	1				1		1	5
Duck (Mallard Size)						1		4			1		1	7
Goose Size (or larger)											3			3
Small Songbird										1				1
Medium Songbird					1									1
Small Galliform						1								1
Raptor						1								1
Wader and Rails							1							1
UNID Bird						1	3		1	1			2	8
Total bird	*1*	*0*	*1*	*7*	*23*	*34*	*7*	*14*	*5*	*10*	*13*		*26*	*141*
Overall total	*55*	*5*	*65*	*90*	*202*	*914*	*63*	*125*	*242*	*929*	*591*	*369*	*1401*	*5051*

(Table 3.3) (see Chapter 1 and Bowden and Hodges 2011, 7). Phases 1–10 encompass the 3rd century to the late 6th/early 7th century, with the majority of the Roman/late antique faunal material deriving from Phases 5–9 (the 5th and 6th centuries). Phase 11 effectively represents a gap in the occupation of the site, lasting from the mid-7th until the early 10th century and no faunal remains can be assigned to this period. Phases 12–15 encompass the 10th to 15th centuries. In this period the major part of the assemblage derives from Phases 12–13 (the 10th to 12th centuries)

Table 3.3. Summary of phasing of the Triconch Palace area

Phase	*Date*
1	3rd century and earlier (*c.* AD 100–250)
2	3rd–4th century
3	Early 5th century (*c.* AD 400)
4	Early 5th century (*c.* AD 420)
5	Early–mid–5th century (*c.* AD 420–50)
6	Mid–late 5th century
7	Early 6th century
8	Mid-6th century (*c.* AD 525–50)
9	Mid–late 6th century
10	Late 6th–7th century
11	Mid-7th–early 10th century
12	Early–late 10th century
13	Early 11th–late 12th century
14	Early 13th–14th century
15	15th century and later

at the Triconch Palace and Phases 13–15 (11th to 15th centuries at the Merchant's House). Although many of the phases contained too little material for firm conclusions to be drawn, there are some clear diachronic changes that become apparent when the datasets are considered at this micro-level.

The Roman/late antique period (Phases 1 to 10): 3rd century to early 7th century

Taxa representation

THE TRICONCH PALACE

As might be expected, the assemblage from the late antique Triconch Palace is dominated by the three main domesticates – cattle, sheep/goat, and pig. Although the relatively small numbers of food mammals present for each phase mean that some caution must be observed, some

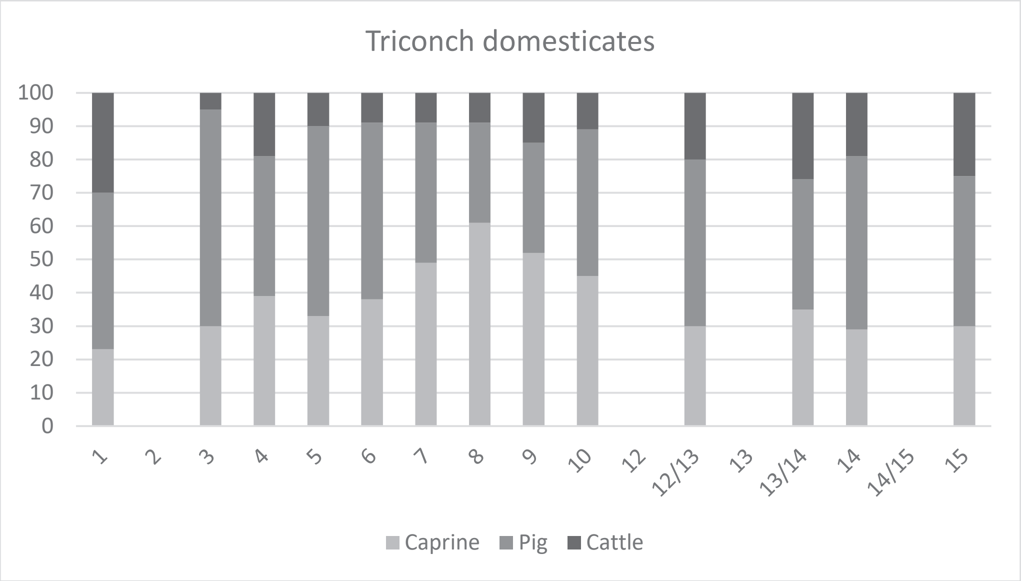
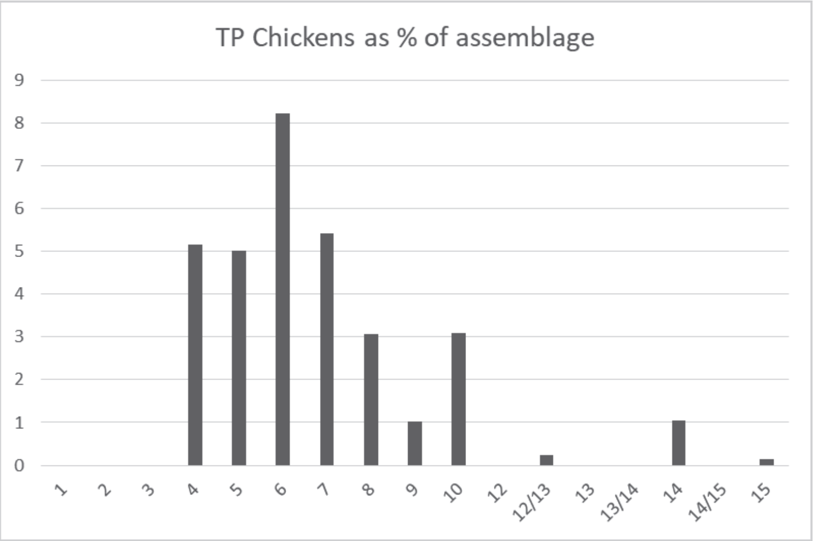


Figure 3.1. Relative percentages of food mammals at the Triconch Palace by phase (see Table 3.4)

Table 3.4. Food mammals at the Triconch Palace by NISP (above) and percentage (below)

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12/13*	*13*	*13/14*	*14*	*15*
Caprine	8		7	30	71	82	112	163	473	155	245	11	171	77	186
Pig	16	2	15	32	122	113	98	82	301	147	408	5	189	140	277
Cattle	10		1	15	21	19	21	23	132	32	161	4	122	53	151
Total	34	2	23	77	214	214	231	268	906	334	814	20	482	270	614

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12/13*	*13*	*13/14*	*14*	*15*
Caprine	23		30	39	33	38	49	61	52	45	30	55	35	29	30
Pig	47		65	42	57	53	42	30	33	44	50	25	39	52	45
Cattle	30		5	19	10	9	9	9	15	11	20	20	26	19	25



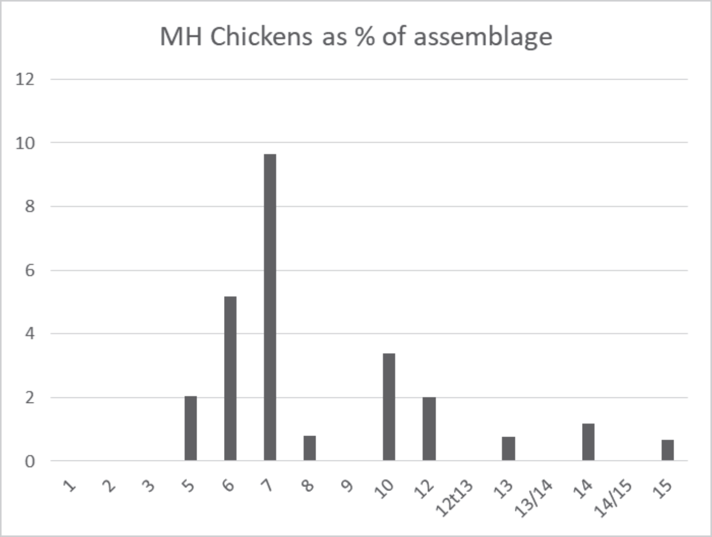


Figure 3.2. Chickens as percentage of the assemblage by phase in the Triconch Palace and Merchant's House

general trends are apparent (Table 3.1; Table 3.4; Fig. 3.1). Where caprines can be identified to species, broadly equal numbers of sheep and goat are present (a pattern also noted on the Vrina Plain – see Madgwick 2019), with perhaps a slight bias towards goat. From the first half of the 5th century (Phase 5), the proportion of caprines rises steadily from 33% to a peak of 61% in Phase 8 (*c.* AD 525–50), thereafter reducing slightly during the second half of the 6th and early 7th century (Phases 9 and 10) although still constituting a significant proportion of the assemblage. The percentage of pig steadily reduces during this same period, decreasing from 57% in Phase 5 to 30% in Phase 8, before increasing slightly in Phases 9 and 10. Cattle are the least well-represented of the main domesticates throughout late antiquity. They reach maximums of 19% of NISP in Phase 4 (albeit among a small sample for this phase) and 15% of NISP in Phase 9 (where the sample size is larger), with numbers similar to those noted by MacKinnon in the late antique contexts in the Forum area (MacKinnon n.d.) and noticeably lower than the figure for the Vrina Plain, where they constituted 23% of NISP for the combined late antique phases (Madgwick 2019).

Of the other domestic mammals, the only other species recovered from the Roman and late antique contexts were 12 fragments identifiable as equid, eight fragments of dog, and two fragments of cat. Wild mammals are represented in far lower numbers, suggesting that game was not a significant component of diet in this area of the town. Of the wild species present, the most common were cervidae, with 60 specimens being identified as red deer or red/fallow deer, although given that no confirmed fallow deer were present in the late antique phases it is likely that the latter were all red deer. When looking at those specimens that were identifiable to species, 21 fragments were identified as red deer (see Table 3.1). Roe deer were also present in the form of 31 fragments. Of the other wild mammals present, eight specimens were identified as wild pig, along with 22 specimens of hare/rabbit (21 of which were hare), and unspecified rodent and amphibian species, each accounting for less than 1% of the total identifiable specimens.

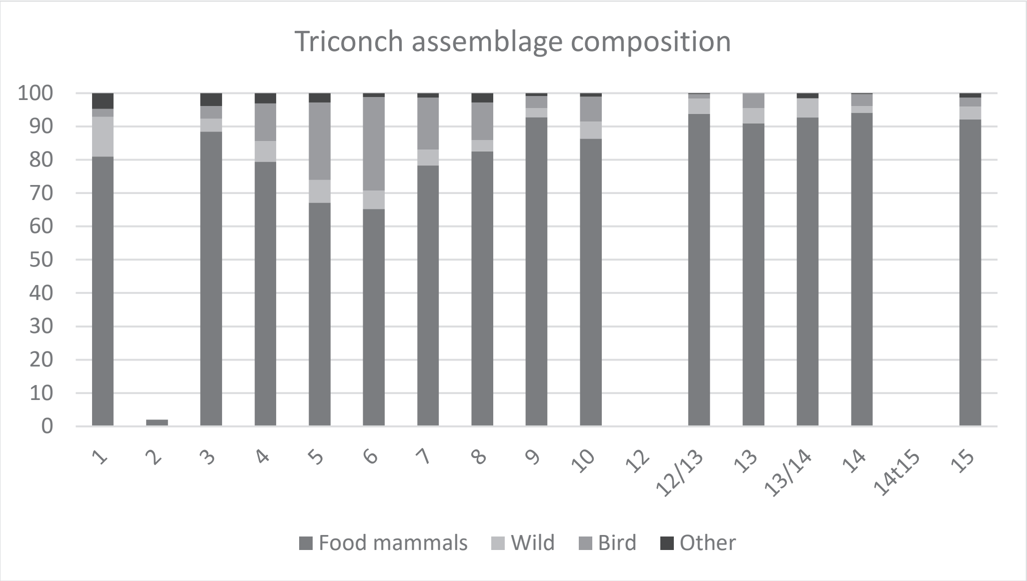


Figure 3.3. Overall composition of the Triconch Palace assemblage (see Table 3.5)

Table 3.5. Composition of the Triconch Palace assemblage by NISP (above) and percentage (below)

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12/13*	*13*	*13/14*	*14*	*15*
Food mammals	34	2	23	77	214	214	231	268	906	334	814	20	482	270	614
Wild	5		1	6	22	18	14	11	27	20	40	1	30	6	26
Bird	1		1	11	74	92	46	37	35	29	11	1		10	18
Other	2		1	3	9	4	4	9	9	4	3	0	8	1	9
Total	42		26	97	319	328	295	325	977	387	868	22	520	287	667

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12/13*	*13*	*13/14*	*14*	*15*
Food mammals	81	2	88	79	67	65	78	82	93	86	94	91	93	94	92
Wild	12		4	6	7	5	5	3	3	5	5	5	6	2	4
Bird	2		4	11	23	28	16	11	4	7	1	5	0	3	3
Other	5		4	3	3	1	1	3	1	1	0	0	2	0	1

Bird species were dominated by chicken and fowl/pheasant/guinea fowl. Swan, coot, curlew, duck and goose were also present and wild fowl would have been plentiful around the marshy peripheries of Lake Butrint, although the fact that deposits were not sieved will have impacted on the recovery of bird remains. Consumption of both domestic and wild fowl reached a peak as a percentage of the assemblage in the 5th century (Phase 5 and 6) before starting to reduce in the 6th century (Phase 7 onwards). Chickens peak in Phase 6, before declining steeply in Phase 9 (mid- to late 6th century) where they formed only 1% of the assemblage (Fig. 3.2). A similar decline can be seen in the Vrina Plain assemblage and seems likely to be linked to a European-wide drop in chicken numbers, possibly linked to climatic change (Sykes 2018).

While the numbers are small, when wild mammals and birds are examined by phase as a percentage of food mammals (Fig. 3.3; Table 3.5), it is apparent that the 5th-century inhabitants of the Triconch area (Phases 4, 5 and 6) had access to a more varied range of animal protein than the inhabitants of the 6th century (Phases 7, 8 and 9), which saw a progressive decline in the consumption of birds in particular, with the drop in the number of chickens likely to have been a factor. Although the sample sizes mean that considerable caution should be observed, the relatively greater numbers of wild mammals (including boar, hare, roe deer and red deer) among the material from 5th-century contexts could be indicative of a higher-status diet relating to participation in hunting.

THE MERCHANT'S HOUSE

Broadly similar trends of taxa representation can be observed in the Merchant's House deposits (Table 3.2), although the quantity of material recovered from the Roman and late antique phases (1519 fragments) is significantly smaller than that from the Triconch Palace area (5775

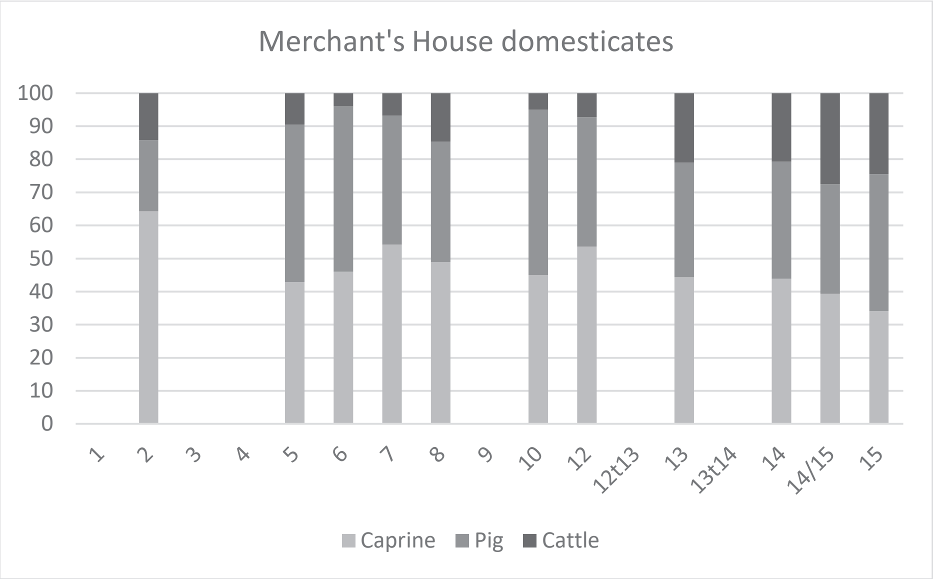


Figure 3.4. Relative percentages of food mammals at the Merchant's House by phase (see Table 3.6)

Table 3.6. Food mammals at the Merchant's House by NISP (above) and percentage (below)

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*
Caprine		9			18	23	32	160	4	18	22		154		93	110	131
Pig		3	1		20	25	23	119	7	20	16		120		75	93	159
Cattle		2			4	2	4	48		2	3		73		44	77	94
Total		14	1		42	50	59	327	11	40	41		347		212	280	384

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*
Caprine		64			43	46	54	49		45	54		44		44	39	34
Pig		21			48	50	39	36		50	39		35		35	33	41
Cattle		14			10	4	7	15		5	7		21		21	28	24

fragments) and the differences between phases are less marked. Nonetheless, it was decided that it was worth examining taxa representation by phase for this smaller group in case any localised variations could be detected. The main food mammals are all represented with the percentage of caprines and pigs remaining broadly constant, although a slight decrease in pig can be noted in Phases 7 and 8 (6th century) with a slight rise in cattle in phase 8 alongside a slight concomitant increase in caprines during the same period (Table 3.6; Fig. 3.4). Very few contexts of Phase 9 were encountered in the excavations but in Phase 10 (late 6th to early 7th century) a slight recovery in the proportion of pig within the assemblage could be observed, as was the case within the Triconch Palace assemblage. Among the identifiable caprines, the largest assemblage, from Phase 8 (*c.* AD 525–50), shows almost equal numbers of sheep and goat fragments. Like the Triconch, other phases suggested a slight predominance of goat although numbers were too small to draw any definite conclusions. With the exception of Phase 8, the numbers of cattle within the assemblage were too small to be reliable, although the figure of 15% in Phase 8 may well be indicative of the proportion of the food mammals represented by cattle.

Of the other domestic mammals, equid, dog and cat were represented in the late antique Merchant's House assemblage, although numbers do not allow anything other than presence to be noted. Wild mammal species include the same range as that noted for the Triconch Palace, comprising red deer, roe deer, wild boar, and hare. No confirmed fallow deer were identified. Wild species were more strongly represented in Phase 8 (the largest of the Merchant's House assemblages) than was the case in the Triconch material from the equivalent phase, but again the numbers involved are too small to do anything but hint at a slight difference between the areas (Table 3.7; Fig. 3.5). Also of note in the Merchant's House material is the bird assemblage, in which chickens are less heavily represented in the Phase 8 contexts (despite the overall increase in birds as a proportion of the assemblage), hinting again at the European-wide decline in chicken numbers apparent in the 6th century (Fig. 3.2).

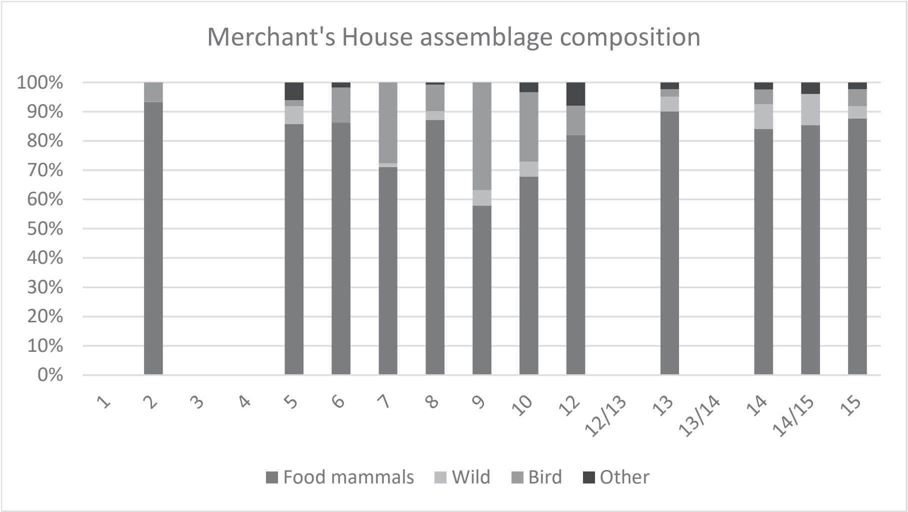


Figure 3.5. Overall composition of the Merchant's House assemblage (see Table 3.7)

Table 3.7. Composition of the Merchant's House assemblage by NISP (above) and percentage (below)

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*
Food mammals		14			42	50	59	327	11	40	41		347		212	280	384
Wild					3		1	11	1	3	1		19		21	35	18
Bird		1			1	7	23	34	7	14	5		10		13		26
Other					3	1		3		2	4		9		6	13	10
Total		15			49	58	83	375	19	59	51		385		252	328	438

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12*	*13*	*14*	*14/15*	*15*
Food mammals		93			86	86	71	87	58	68	82	90	84	85	88
Wild					6		1	3	5	5		5	8	11	4
Bird		7			2	12	28	9	37	24	10	3	5		6
Other					6	2		1		3	8	2	2	4	2

Age structure and husbandry practices at the late antique Triconch Palace and Merchant's House areas

In the following section the data for both sites has been combined to increase sample size. Dental ageing data was limited but some broad trends could be noted among the main domesticates. The pig data showed a strong propensity towards consumption of younger animals during late antiquity, with sub-adult animals the most strongly represented across most of the late antique phases, particularly Phases 7, 8 and 9, perhaps indicating on-site production and rearing of pigs (Fig. 3.6). The age profile of caprines, by contrast, shows a marked presence of adult animals, which dominate in Phases 7–10, suggesting that caprines were also important for secondary products such as milk and wool (Fig. 3.7). Cattle ageing data for the late antique phases was too limited for any real conclusions to be drawn although it can be noted that all recovered samples were adult or elderly (Fig. 3.8).

Table 3.8. Sexing data for main domesticates from the Triconch Palace and Merchant's House

Triconch Palace and Merchant's House	*Cattle*		*Sheep/ Goat*		*Pig*	
	M	*F*	*M*	*F*	*M*	*F*
Roman/Late Antique (Phases 1–10)	1	3	7	13	61	14
Medieval (Phases 12–15)	3	9	19	15	98	25

The sexing evidence for the three main domesticates is presented in Table 3.8. Sample size remains too small for reliable interpretation of the cattle and caprine data but

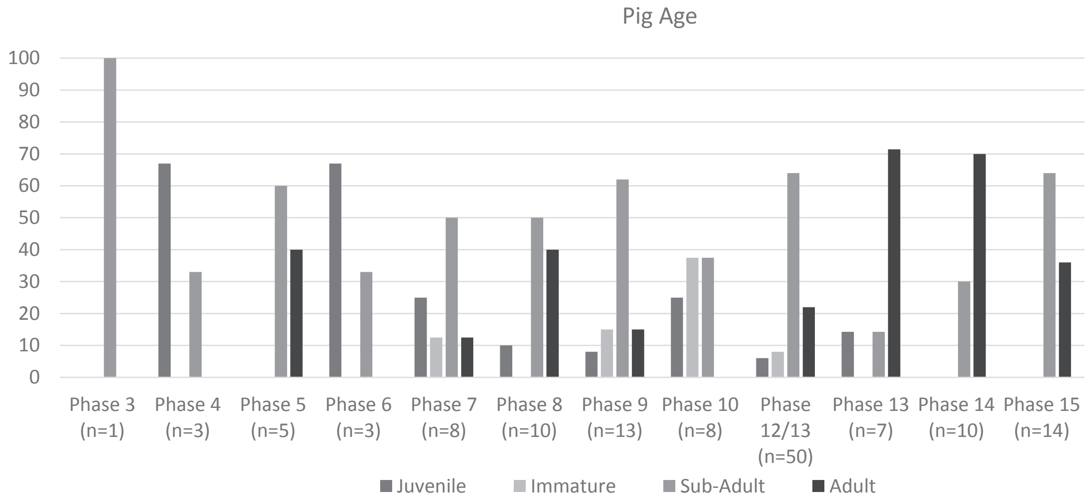


Figure 3.6. Dental age profile of pigs from the Triconch Palace and Merchant's House

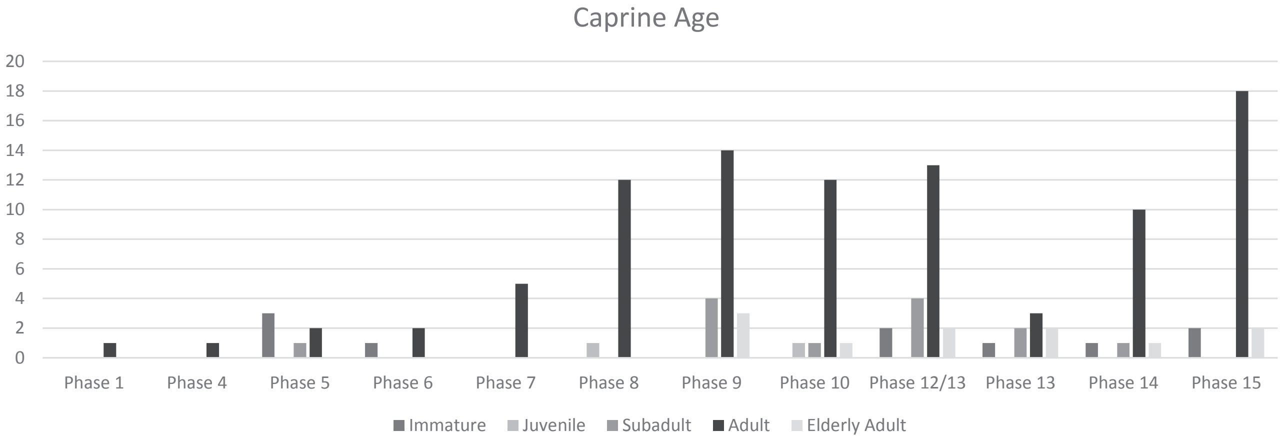


Figure 3.7. Dental age profile of caprines from the Triconch Palace and Merchant's House

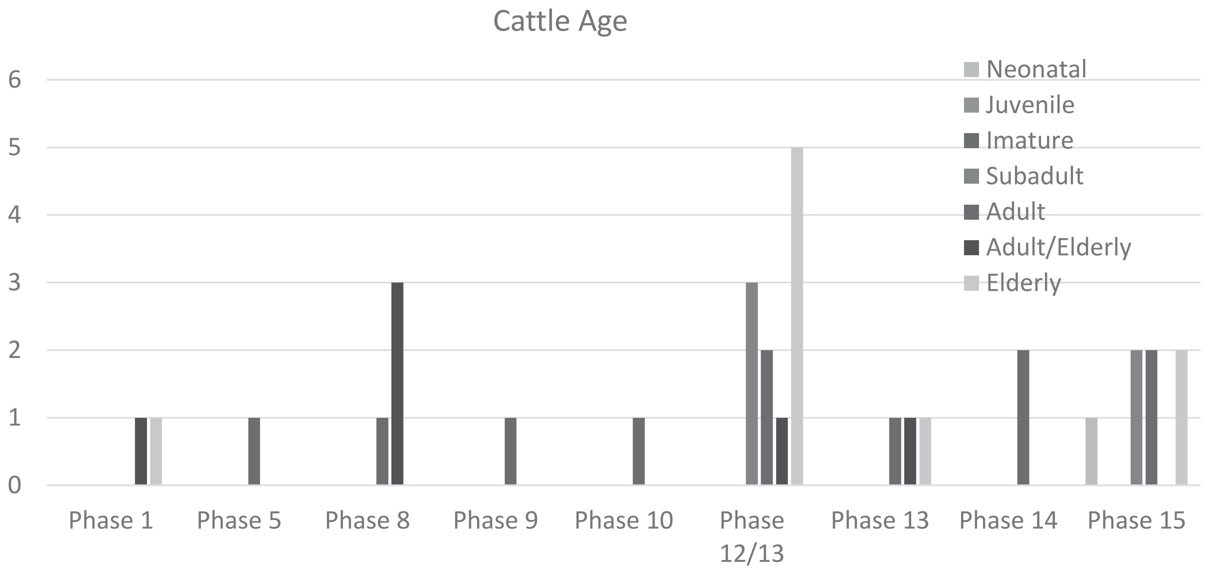


Figure 3.8. Dental age profile of cattle from the Triconch Palace and Merchant's House

Table 3.9. Element representation of caprines from the Triconch Palace and Merchant's House

Anatomical part	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*	*Total*
Horn core	1				2	2	2	5	14	1	1	7			2	2	5	43
Mandible	1	1			9	5	7	16	36	13	2	13	7	5	7	8	9	139
Maxilla					2										1			3
Scapula		1			3	1	5	12	24	2		16	11	5	6	6	10	102
Humerus	1	1	1	3	6	4	13	23	38	7	2	24	18	10	20	13	19	203
Radius	2		1	7	5	11	18	37	57	18	5	27	31	17	19	22	31	308
Ulna	1			1	1	5		8	4	2		4	5	4	5	1	2	43
Pelvis		1			9	7	7	13	19	4		26	15	2	10	5	11	129
Femur	1			3	3	10	3	15	27	6	2	6	6	7	12	4	11	116
Tibia		2	1	7	10	10	18	56	72	22	2	47	19	16	26	23	27	358
Astragalus				1		1	1	5	1	2	1			1	3	2	2	20
Calcaneum			1	2	1	2	2	12	10	6		3	3	1	1	1	3	48
Metacarpal		1		1	4	15	10	34	45	8	3	22	11	9	14	6	20	203
Metatarsal	1	1	1	3	7	10	10	43	61	8	1	20	13	17	11	6	17	230
Phal 1			1		3	4	5	8	13	5	3	4	3	2	5	1	6	63
Phal 2						4	2			2							1	9
Phal 3										2								2
Total	8	9	7	30	76	99	130	317	467	127	25	241	162	111	162	116	174	

Phase	*6*	*7*	*8*	*9*	*10*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*
Mandible	5	7	16	36	13	13	7	5	7	8	9
Forelimb	16	36	72	119	27	67	60	32	45	41	60
Hindlimb	27	28	84	118	32	79	40	25	48	32	49
Forefoot metacarpal	15	10	34	45	8	22	11	9	14	6	20
Hind foot metatarsal	10	10	43	61	8	20	13	17	11	6	17
	73	91	249	379	88	201	131	88	125	93	155

Percentage by phase	*6*	*7*	*8*	*9*	*10*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*
Mandible	7	8	6	9	15	6	5	6	6	8.6	6
Forelimb	22	39	29	31	31	33	45	36	36	44	39
Hindlimb	37	31	34	31	36	39	31	29	38	34	31
Forefoot metacarpal	20	11	14	12	9	11	9	10	11	6.4	13
Hind foot metatarsal	14	11	17	16	9	10	10	19	9	6.4	11

both suggest a preference for female over male animals, indicating perhaps the use of milk as a secondary product, particularly in relation to the caprines. The pig remains provided the most substantial set of sexing data. Male specimens came to a total of 61, whilst females came to just 14, giving a male to female ratio of 4:1. Whilst this may represent a preference towards male pigs for slaughter, the data may be affected by recovery biases, given that sexing data for pigs is based on analysis of the canines recovered and female canines are less likely to be recovered because they are smaller than the male canines.

The most surprising sexing evidence related to the chickens. Of the 20 metatarsals recovered from late antique contexts for which the presence or absence of spurs could be determined, spurs were present on 14 of them, pointing to the predominance of older male birds. This is consistent with findings from elsewhere in the Roman Empire and points to the cultural rather than economic value of such

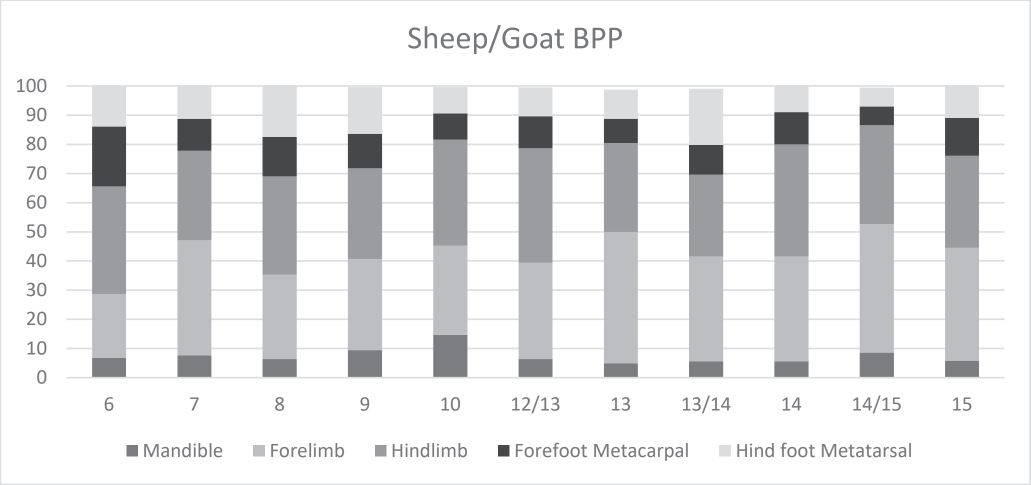


Figure 3.9. Element representation of caprines from the Triconch Palace and Merchant's House (see Table 3.9)

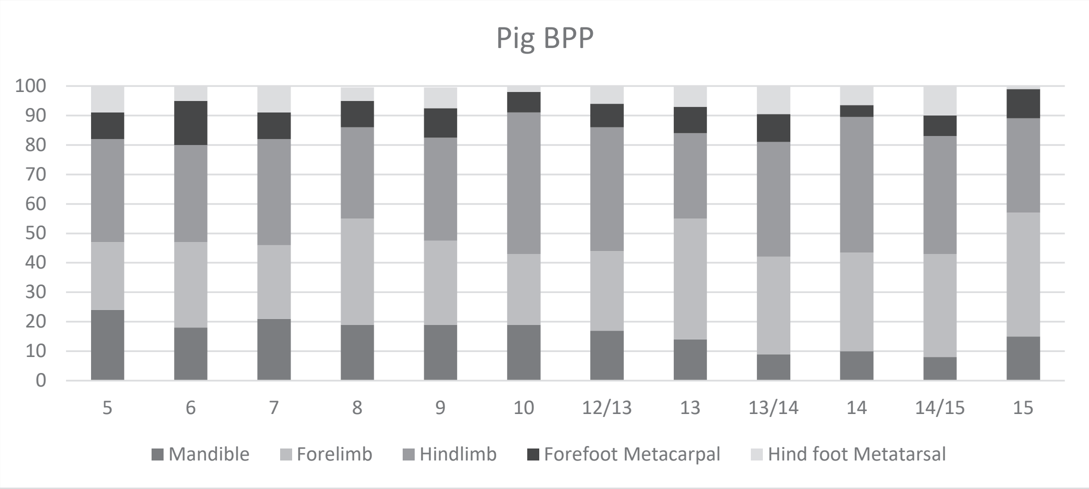


Figure 3.10. Element representation of pig from the Triconch Palace and Merchant's House (see Table 3.10)

birds (Sykes 2012). The apparent popularity of cockerels may relate to their associations with masculinity, but at Butrint it may also highlight their possible value in complex belief systems. Cockerels are both noisy and aggressive and their presence may have formed part of the apotropaic armoury that can be seen employed in daily life at the Triconch Palace throughout late antiquity (see Chapter 10). The importance of cockerels in this sense is made explicit in the mosaic pavement of Butrint's Baptistery (dating to *c.* AD 525–50), where two cockerels are depicted immediately inside the door, facing each other in a clear attitude of confrontation (Mitchell 2004, 207). Their position immediately in front of the threshold suggests that, in common with the theatrical masks in the Triconch vestibule, they served as guardians to the building itself, controlling access at a point of spiritual vulnerability.

Element representation

Analysis of element representation is confined here to the three main domesticates as these provide the most meaningful datasets to allow further discussion. Of the late antique material containing samples sufficient for discussion (Phases 6–10), the caprines (Fig. 3.9; Table 3.9) demonstrate a relatively even spread of element representation, although a slight rise in mandibles can be seen in Phases 9 and 10. This may reflect the increased presence of complete carcasses on site in this period, although the presence of all elements throughout late antiquity suggests the exploitation of whole carcasses throughout this period. The pig element representation similarly indicates the presence of on-site production (reflected also in the age profile of the pigs), and it appears that the entire carcass was exploited throughout late antiquity. Phase 10 (late 6th to early 7th century) sees a slight increase in the relative number of hindlimbs present, perhaps indicating a greater reliance on pork not raised in the immediate vicinity (Fig. 3.10; Table 3.10). Cattle element representation is of limited value because of the small sample size, but shows that all body parts, including mandibles, were represented in all phases, indicating that complete carcasses were butchered on site (Fig. 3.11; Table 3.11).

Table 3.10. Element representation of pig from the Triconch Palace and Merchant's House

Anatomical part	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*	*Total*
Mandible	2		1	3	18	13	12	21	38	12	3	48	12	7	14	5	20	229
Maxilla			1	1	5	3	4	2	5	4		8	4	2	9		6	54
Scapula	1			4	9	7	3	16	19	4	4	19	6	2	13	1	11	119
Humerus	2			4	7	9	7	16	31	8	2	44	16	20	22	12	34	234
Radius	1				1	5	4	7	8	3		16	12	5	10	8	10	90
Ulna	3			1	2	4	2	10	13	5	1	16	4	7	13	9	8	98
Pelvis	1			2	6	8	5	6	13	8	1	42	8	8	10	5	12	135
Femur	2				9	8	7	12	26	11	1	37	4	10	24	8	14	173
Tibia	1			3	10	8	8	16	31	11	2	39	13	14	26	11	16	209
Fibula			1		3	2	3	8	1	1	1		2				2	24
Astragalus					1		3	2	2	2		3	1	1	2	1	4	22
Calcaneum			1				3	4	5	6		7	4	5	5	3	7	50
Medial metapodial				2	1	3	1			1			1	1	1	1	2	14
Lateral metapodial					8	6	8	9	5	7	1	5		2	7	1	5	64
Metacarpal	1	1		3	7	12	5	10	21	5		25	8	8	6	4	14	130
Metatarsal		1			7	4	5	5	16	1		17	6	8	9	6	1	86
Phal 1				1	4	4	7	4	4	5	1	5	2	1	1	1	7	47
Phal 2					9			4	1	3	1	2			2			22
Phal 3					1	3										1	2	7
Total	14	2	4	24	108	99	87	152	239	97	18	333	103	101	174	77	175	

Phase	*5*	*6*	*7*	*8*	*9*	*10*	*12*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*
Mandible	18	13	12	21	38	12	3	48	12	7	14	5	20
Forelimb	17	21	14	39	58	15	6	79	34	27	45	21	55
Hindlimb	25	24	20	34	70	30	4	118	25	32	60	24	42
Forefoot metacarpal	7	12	5	10	21	5		25	8	8	6	4	14
Hindfoot metatarsal	7	4	5	5	16	1		17	6	8	9	6	1
Total	74	74	56	109	203	63	13	287	85	82	134	60	132

Percentage by phase	*5*	*6*	*7*	*8*	*9*	*10*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*	*Total*
Mandible	24	18	21	19	19	19	17	14	9	10	8	15	193
Forelimb	23	29	25	36	29	24	27	41	33	34	35	42	443
Hindlimb	35	33	36	31	35	48	42	29	39	46	40	32	517
Forefoot metacarpal	9	15	9	9	10	7	8	9	9.5	4	7	10	107
Hindfoot metatarsal	9	5	9	4.5	7	2	6	7	9.5	7	10	1	77

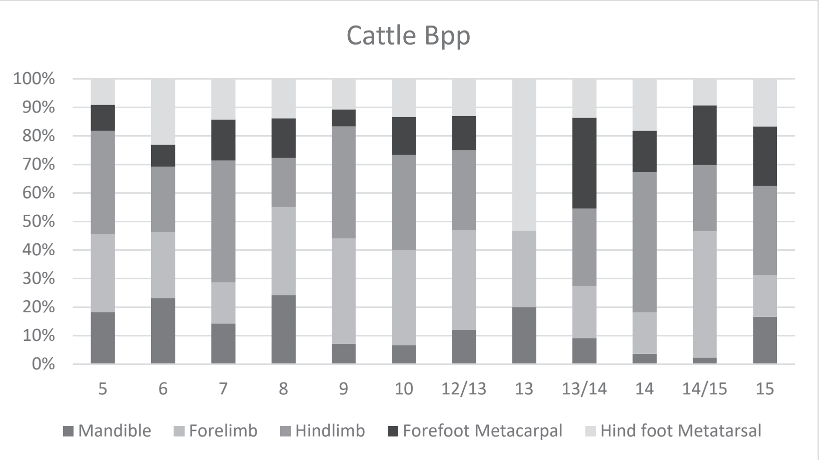


Figure 3.11. Element representation of cattle from the Triconch Palace and Merchant's House (see Table 3.11)

Table 3.11. Element representation of cattle from the Triconch Palace and Merchant's House

Anatomical part	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*12*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*	*Total*
Mandible	3			2	2	3	1	7	6	1	1	11	3	2	2	1	8	53
Maxilla																		
Scapula	2			1				1	6	1	2	7				2		22
Humerus				1	2	1	1	4	14	3		10	4	1	2	9	5	57
Radius				1	1	2		4	11	1	1	15		3	6	8	2	55
Ulna		1				1		3	5			9	3	2	1	5		30
Pelvis				1	1			2	11	1		11		2	4	4	6	43
Femur			1		2	1	2		11	2	1	7		1	4	4	2	38
Tibia				1	1	2	1	3	11	2		9		3	19	2	7	61
Fibula																		
Astragalus				1	3		1	2	5	1		11		1	2	4	2	33
Calcaneum					1		1	4	6	4	1	11	1	2	3	3	13	50
Medial metapodial					2				1				1		1	1	2	8
Lateral metapodial																		
Metacarpal	1				1	1	1	4	5	2		12		7	8	9	10	61
Metatarsal	1			1	1	3	1	4	9	2		13	8	3	10	4	8	68
Phal 1						1	4	9	10	3		6	5	3	1	8	12	62
Phal 2					2	2	2	3	3	4		1		1	4			22
Phal 3	1						1	4	1	2		2		1	2			14
Total	8	1	1	9	19	17	16	54	115	29	6	135	25	32	64	69	77	

Phase	*5*	*6*	*7*	*8*	*9*	*10*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*
Mandible	2	3	1	7	6	1	12	3	2	2	1	8
Forelimb	3	3	1	9	31	5	35	4	4	8	19	7
Hindlimb	4	3	3	5	33	5	28		6	27	10	15
Forefoot metacarpal	1	1	1	4	5	2	12		7	8	9	10
Hind foot metatarsal	1	3	1	4	9	2	13	8	3	10	4	8
Total	11	13	7	29	84	15	100	15	22	55	43	48

Percentage by phase	*5*	*6*	*7*	*8*	*9*	*10*	*12/13*	*13*	*13/14*	*14*	*14/15*	*15*
Mandible	18	23	14	24	7	7	12	20	9	4	2	17
Forelimb	27	23	14	31	37	33	35	27	18	15	44	15
Hindlimb	36	23	43	17	39	33	28	0	27	49	23	31
Forefoot metacarpal	9	8	14	14	6	13	12	0	32	15	21	21
Hind foot metatarsal	9	23	14	14	11	13	13	53	14	18	9	17

The medieval period (Phases 12 to 15): early 10th century to 15th century and later

Taxa representation

THE TRICONCH PALACE

The assemblage from the later Middle Ages continues to be dominated by the main domesticates but some intriguing differences emerge that point to changes in the nature of occupation at the site and the dietary preferences of the inhabitants of Butrint. Some caution should by observed because many of the major later deposits were predominantly excavated by heavier methods, meaning that the assemblage may be more biased towards larger and more robust bones than that of the late antique period. Nonetheless, some interesting trends are discernible. The food mammals (Table 3.1; Fig. 3.1) see a marked decrease in the presence of caprines, which constitute between 29% and 35% of the assemblage in the Middle Ages, compared to a maximum of 61% in the mid-6th century (Phase 8). Where caprines can be identified to species, sheep seem to be slightly better represented although not markedly so. Pig forms the dominant species throughout this later period, constituting 50% of the recovered assemblage from the 10th to 12th centuries (Phase 12/13), and between 39% and 52% in the 12th to 14th centuries (Phases 13/14 and 14). Cattle also are more prevalent in this later period than in late antiquity, comprising between 19% and 26% of the assemblage, although it is possible the recovery bias may be a factor in this slight increase. This bias may also account for the absence of smaller domestic species such as cat and dog in the assemblage, with horse being the only other domestic species represented. Birds are also very poorly represented in the medieval assemblages from the Triconch and this is also likely to be a result of this recovery bias. The bird assemblage is dominated by fragments in the ‘domestic fowl’ and ‘fowl/pheasant/guineafowl’ categories.

Wild species are present in small quantities, suggesting the continued significance of hunting, possibly as a high-status activity. Of particular note is the increased presence of wild boar in the 10th to 12th centuries (Phase 12/13) as well as later phases. Cervidae are also well represented in the later medieval period, with red, roe and fallow deer present, the latter appearing to be a medieval introduction to the area. It is possible that live fallow deer were imported to Butrint to be emparked for the entertainment of high-status individuals, given that some inhabitants of Butrint in the 10th century clearly had connections with holders of high military and political office (see Chapter 11).

THE MERCHANT’S HOUSE

The medieval assemblage from the Merchant’s House (Table 3.2, Fig. 3.4) gives a slightly different picture, with caprines remaining dominant within the food mammals and little noticeable increase in numbers of pig. As in the Triconch assemblage, sheep slightly outnumber goats where caprines can be identified to species, although overall sample size is small. Like the Triconch assemblage, cattle seem to become more significant from the 10th to the 15th century. Although recovery bias may again be a factor here, other factors such as element representation suggest that there is a change in cattle consumption in the later Middle Ages. Of other domestic species, equids are represented as well as dog and cat.

Interestingly, wild mammals seem to be a more significant element in the Merchant’s House assemblage than in the contemporary deposits from the Triconch Palace, particularly in the 13th to 15th centuries (Phases 14 and 14/15), constituting between 8% and 11% of the recovered specimens (compared to between 4% and 6% from the Triconch deposits) (Fig. 3.5; Table 3.7). It is possible that this is connected with the use of the late 14th-century tower (Phase 14b) on the city wall, which seems to have resulted in a localised concentration of material (pottery, coins and vessel glass) in the Merchant’s House area. This use of the tower may be associated with renewed use of the fortifications in the period of Venetian control (see Chapter 11 and Bowden *et al.* 2011a). These deposits also produced two probable fragments of peacock and while they may be residual, it seems most likely that they are associated with this phase. The combined assemblage suggests that traces of high-status dining can be identified in this area of the Merchant’s House in this period. Numbers of other birds are very limited by comparison with late antiquity although domestic fowl are present throughout the medieval period while coot is also a consistent presence. The lower percentage of birds in the assemblage, however, may well be a result of the recovery bias noted above.

Age structure and husbandry practices at the medieval Triconch Palace and Merchant’s House areas

As was the case for the late antique phases, the medieval Triconch and Merchant’s House material was combined in order to increase sample size for examining age and sex of the animals present.

The age profile of the pigs based on dental ageing (Fig. 3.6) showed a significant difference to that from late antiquity, with a drop in the number of immature and juvenile specimens. Sub-adult animals constituted 64% of the quite substantial sample (50) from the 10th- to 12th-century deposits (Phase 12/13) (almost all from the Triconch Palace courtyard area), with adult pigs making up a further 22%. This, combined with the element representation discussed below, suggests that the area was moving away from the production of pig apparent in late antiquity towards a pattern predominantly based around the consumption of older animals.

Caprines are dominated by adult animals in the medieval assemblage, with adult and elderly animals comprising 80% (51/64) of the ageable material (Fig. 3.7). This could indicate the continued importance of secondary products such as wool, alongside a reduction in the importance of caprines as a source of meat, compared to a concomitant increase in the consumption of pig.

Cattle numbers are insufficient for meaningful analysis, although the presence of predominantly older animals should be noted, particularly in Phase 12/13 where five elderly specimens were recovered, perhaps suggesting the importance of cattle for traction (Fig. 3.8). The appearance of sub-adults in Phase 12/13 is also interesting, possibly suggesting more consumer demand for younger animals in the 10th to 12th centuries.

Sexing evidence for the main food mammals is again based on very small samples and here again the numbers are combined into broad late antique and medieval phases (Table 3.8). Cattle and pig figures mirror those of late antiquity with male/female ratios of 1:3 (cattle) and *c.* 4:1 (pig) in both periods. The caprines, however, were quite different, with male/female figures of 7:13 in late antiquity and 19:15 in the medieval period, perhaps indicating a reduced emphasis on the use of sheep for milk in the Triconch area and a focus on wool and meat, with the absence of younger animals and the reduction in females suggesting less emphasis on breeding in the medieval period.

Element representation

Element representation indicates that butchery of the main food mammals was happening on site, with all body parts present. Caprines (Fig. 3.9; Table 3.9) show a drop in the number of mandibles as a proportion of the body parts present, potentially suggesting a greater emphasis on consumption of meat brought in from outside than previously. This seems to be consistent through all phases in the Middle Ages, with proportions present remaining relatively constant, varying from 5% to 6.4% between Phases 12 and 15 (10th to 15th century), with a slight increase (to 8.4%) noted in Phase 14/15 (deriving from the Merchant's House area). The caprines also show a significant preference for forelimbs in comparison with late antiquity and again this is consistent across all phases of the medieval period, varying from 33% to 45% of the recovered material across Phases 12 to 15, by comparison with 22% to 40% across Phases 6 to 10. Representation of hind and fore feet elements was also slightly lower, with hind feet metatarsals in particular appearing in slightly lower numbers. In general, a slight preference for the forelimb elements of caprines could be observed, and, as was noted for the mandibles, the pattern of representation is more consistent with consumption than with production or breeding.

Pigs also showed a significant drop in the percentage of mandibles present, with the relative percentages declining steadily from 17% in Phase 12/13 to 8% in Phase 14/15, before recovering to 15% in Phase 15 (Fig. 3.10; Table 3.10). The combined percentage of meat-bearing fore and hind limbs is also consistently greater for the medieval phases than is the case for the late antique phases, again suggesting a pattern of consumption rather than production, with meat-bearing limbs perhaps being brought to the Triconch area from elsewhere. The latest deposits (from Phase 15) show a distinct preference for forelimb elements including the feet.

Cattle numbers are again small but the trends in the sample seem to reflect those noted for pig, with a steady reduction in the numbers of mandibles present until a slight uplift in Phase 15 (Fig. 3.11; Table 3.11). There is also some indication of a preference for meat-bearing fore and hind limbs in Phases 14 and 14/15, reinforcing the impression of consumption rather than production in this 13th- to 14th-century period.

Discussion

Differences in excavation strategies for different areas and phases of the site inevitably limit the conclusions that can be drawn from the Triconch assemblage. Taphonomic processes resulting from the seasonally changing water table and the evident post-depositional disturbance across the site will also have led to an over-representation of the more robust elements such as tibiae, humerii and radii. Similarly, the lack of sieving on site will inevitably lead to certain biases concerning the recovery of larger bones, and may have led to the under-representation of smaller mammals, birds and fish. On the latter, it can be noted here that wet-sieved environmental samples recovered surprisingly little fishbone given the historically documented exploitation of Butrint's marine resources in more recent times. This intriguing indication of the limited exploitation of Butrint's marine environment is supported by the low levels of fishbone recovered from the Forum excavations (where the majority of contexts were dry sieved) (MacKinnon n.d) (see Chapter 10). However, the apparent presence of fishing equipment in the small finds assemblage (see Chapters 8 and 10) should also be noted and it may be that both preservation and recovery strategies were factors in the level of fishbone recovered. Nonetheless, some relatively clear trends can be discerned including a quite marked change in the exploitation of animals across the course of late antiquity. Equally, the medieval assemblage also shows some differences to that of late antiquity, allowing us to draw wider conclusions regarding the diet and economic behaviours of the inhabitants of the Triconch area across this long arc of time.

The Roman/late antique phases

During the 5th century (Phases 4, 5 and 6), the inhabitants of the Triconch Palace and Merchant's House areas enjoyed a varied diet of meat, with pig constituting the dominant animal consumed (this being particularly marked in Phases 5 and 6). Pig constituted 42%, 57% and 53% of domestic food mammals by NISP respectively in Phases 4, 5 and 6 in the Triconch and 48% and 50% in Phases 5 and 6 in the Merchant's House (Figs 3.1, 3.4; Tables 3.4, 3.6). This compares with figures of 57% of NISP in the 2nd- to 4th-century Forum and 45% in the 4th- to 6th/7th-century Forum (MacKinnon n.d). In contrast, pig only constituted

32% of NISP in the Roman/late antique assemblage from the Vrina Plain (Madgwick 2019), clearly indicating that the inhabitants of the Vrina site followed different patterns of meat consumption to those of the Triconch area and the Forum area, who were following a pork-rich diet known from Roman urban sites in Italy (and elsewhere in the Western Empire) (King 1999).[2]

Sheep and goat were second in importance at the Triconch and Merchant's House, constituting 38%, 33% and 39% of NISP respectively in Phases 4, 5, and 6 in the Triconch and 43% and 46% in Phases 5 and 5 of the Merchant's House. It is unclear whether this difference between the two areas is significant although the relatively small sample size from the Merchant's House should be borne in mind. Caprines constituted 17% of the Roman (2nd- to 4th-century) assemblage from the Forum and 38% of the late antique (4th- to 6th/7th-century) material (MacKinnon n.d.). This again suggests that the 5th-century Triconch area followed broadly similar patterns of consumption to the Forum. On the Vrina Plain, caprines were the most dominant taxa in the late antique assemblage, comprising 40% of NISP (Madgwick 2019).

Cattle were the least represented of the food mammals in the 5th-century Triconch assemblages, constituting 19%, 10% and 9% in Phases 4, 5 and 6 respectively. This compares with 26% in the Roman Forum and 17% in the late antique Forum ((MacKinnon n.d), and 27% from the late antique Vrina Plain (Madgwick 2019). Cattle may be under-represented because obviously their size means that a single cow will produce far more meat than a single pig or sheep. Nonetheless, the relatively low percentage of cattle within the assemblage in comparison with the Butrint Forum and Vrina assemblages suggests that this is a genuine localised difference and that consumption of beef was limited at the Triconch. The relative frequency of cattle in the Vrina material is likely to reflect the fact that the location of Vrina is much better suited to grazing cattle than the built-up Butrint peninsula and the rocky isthmus that connects it to the land to the north, where grazing land suitable for cattle is in short supply.

Although the 5th-century assemblage from the Triconch has aspects in common with urban Roman patterns of consumption, it is likely that live animals were present on site or were brought to the site for butchery as all body part elements were present in the case of both sheep and pigs. Chickens were seemingly present (or consumed in considerable numbers), but as noted above the evidence points to a large presence of older male chickens, which serve little practical purpose. Other birds and wild taxa (including boar, hare, and red and roe deer) also formed more significant aspects of the 5th-century assemblage than that of later periods and it appears that the occupants of the Triconch area in this period enjoyed greater dietary variety in this period (Fig. 3.3; Table 3.5). The presence and consumption of wild animals, particularly deer, often has symbolic connotations, and whilst the role of wild animals in this instance was not one of economic importance (their numbers are too few), the social significance of their consumption may have been much greater (Hamilakis 2003; Lewis 2007; Sykes 2006). The more-marked presence of wild animals in the 5th-century assemblage compared with that of the 6th century provides further indication that the 5th-century occupants of the Triconch area enjoyed a higher standard of living than those of the 6th century.

The examination of NISP by phase at the Triconch, notwithstanding some issues with sample size, also allows the identification of major changes that occurred at the site in the 6th to early 7th century (Phases 7–10). In particular there is a progressive reduction in the consumption of pork, which dropped from forming 53% of the food mammals assemblage from the Triconch in the late 5th century (Phase 6) to forming 30% of the assemblage in the period *c.* AD 525–50 (Phase 8) and 33% in the mid- to late 6th century (Phase 9), before rising slightly to 44% in the late 6th to early 7th century (Fig. 3.1; Table 3.4). However, although the proportion of pork within the assemblage is reduced, there is greater variety on site in terms of age ranges in the 6th century with more juvenile, immature and sub-adult animals present, suggesting breeding on site. As in the 5th century, a full range of body parts is present indicating butchery of live animals on site.

The drop in pork in the Triconch Palace material is accompanied by a corresponding rise in the presence of caprines, which rose from 38% in the late 5th century (Phase 6) to a maximum of 61% in Phase 8. The percentage of caprines dropped slightly in the second half of the 6th century but they remain the most dominant aspect of the assemblage. The reduction in pig in favour of caprines is also apparent in the smaller Merchant's House assemblage although the trend is less pronounced.

In the Triconch Palace the mid-6th century saw a significant reduction in the proportion of the assemblage formed by birds (Fig. 3.3; Table 3.5). While domestic fowl remain a presence, numbers were reduced in the 6th century and this may reflect the wider phenomenon of a collapsing chicken population noted earlier. Other fowl/pheasant/guinea fowl continued to be present as did duck, but the overall proportion of the assemblage composed of wild taxa is reduced, suggesting such additional food sources may have become less accessible to the occupants of the Triconch Palace for either economic or other reasons.

In summary, the 6th century saw an apparent reduction in the range of animals consumed and a move away from pork towards goat and mutton (the latter suggested by the predominantly adult and elderly sheep present). In this sense the Triconch is following the pattern also noted in Italian towns, including Rome and Naples, where pork was supplanted by goat and mutton in the late 5th and 6th century (King 1999, 172–4), although it is at variance with the pattern suggested by Kroll (2012) in which caprines are dominant in the southern Balkans throughout late antiquity. What is also intriguing is the apparent differences that are discernible in the different excavated areas of Butrint, with the Triconch following the 'urban' pattern of the Forum in the 5th century before switching to a pattern reflecting more that of the extra-urban site of Vrina in the 6th century, an aspect that will be further explored in Chapter 10.

The medieval phases

Following a hiatus in discernible activity lasting from at least the mid-7th until the late 9th century, the Triconch and Merchant's House areas saw renewed activity that lasted until the 15th century and later. The 10th to 12th centuries (Phase 12/13) were represented in particular by large dumps of material in the Triconch courtyard. The faunal assemblage from these deposits illustrated the renewed significance of pig, which constituted 50% of the recovered domesticates, with caprines and cattle forming 30% and 20% respectively (Fig. 3.1; Table 3.4). The equivalent period in the Merchant's House presents a slightly different picture (Fig. 3.4; Table 3.6). While the sample size in Phase 12 is too small to be reliable, that of Phase 13 shows pig forming 35% of the recovered specimens with caprines making up 44% and cattle 21%. The Triconch pattern broadly reflects that of the middle medieval (10th- to 14th-century) period in the Forum where cattle, caprines and pig formed 19%, 35% and 46% of the assemblage respectively (MacKinnon n.d). At Vrina, conversely, caprines were by far the most dominant element of the 9th- to 12th-century assemblage, forming 58% of identifiable specimens followed by pig (25%) and cattle (17%). The similarity between the Forum and Triconch assemblages in comparison with that of Vrina recalls that of the 5th-century material and it is tempting to link this with the apparent revival of urban life in the walled city from the 10th century onwards (see Chapter 11).

The changing pattern of consumption in the Triconch area is also suggested by the age pattern of pigs, with the dominance of sub-adults suggesting that particular dietary preferences are represented (Fig. 3.6). Although the age profiles of the different domesticates remained predicated on older animals, some younger cattle were also present, hinting perhaps at a shift towards consumption rather than production.

Element representation for all three domesticates indicates that butchery was still being undertaken on site, with all parts of the animal represented in the assemblage, although there is some indication of preference for the hindlimbs of pigs.

The patterns apparent for the 10th to 12th century become more marked for the 13th to 15th century. The increased importance of beef continued throughout the medieval period, with cattle consistently comprising a more significant part of the assemblage than was the case in late antiquity, forming 26%, 19% and 25% in Phases 13/14, 14 and 15 respectively, with similar percentages present in the Merchant's House material. The higher percentage of caprines evident in the Merchant's House in the 10th to 12th century is continued in this later period, suggesting that this represents a genuine difference between the two areas, with pig numbers remaining consistently higher in the Triconch. The explanation for this difference is unclear, although it is possible that some of the Triconch material was introduced from elsewhere as a part of a deliberate process of levelling or land reclamation (see Chapter 11).

Element representation across the Triconch/Merchant's House also shows a marked difference to that of late antiquity, with the percentage of mandibles from the three main domesticates significantly reduced, indicating that more butchered meat was being brought onto the site, as opposed to whole or live animals (Figs 3.9, 3.10, 3.11). The latest material from Phase 15 shows a preference towards the forelimbs of pigs, indicating the selection of particular body parts or cuts of meat.

Finally, one of the most intriguing aspects of the medieval assemblage from the Merchant's House is the noticeably higher number of wild animals in the 13th to 15th century (Phases 14 and 15) (Fig. 3.5; Table 3.7). Other aspects of the material from this phase hint at localised occupation of quite high status focused around the newly built tower on the city wall, which may be associated with Venetian refortification of the town in the 14th century (see Chapter 11). The higher percentage of wild fauna, including boar and cervids (together with two fragments of peacock), may relate to this activity in the tower.

Conclusion

To summarise, whilst animal-based diet and economy were focused on the three main domesticates throughout late antiquity and the medieval period, there are clear diachronic changes over time that become apparent when the faunal remains are considered phase by phase. Several trends can be detected, such as the shift from pig exploitation in the 5th century (also dominant in the earlier Roman period in the Forum), to sheep/goat in the 6th century, followed by the return to an emphasis in pig exploitation in the medieval period. In addition to these changes, the medieval phases also saw a decrease in faunal diversity, providing further evidence for changing populations over time around the Triconch Palace area.

Further detailed analysis of spatial patterning, metrical analysis, pathology and butchery would undoubtedly reveal more of the wealth of information contained in the faunal data. This report, and the associated raw data, along with the evidence from Vrina (Madgwick 2019), and the Butrint Forum will hopefully help to stimulate more detailed future study of animal husbandry and human-animal relationships at Butrint.

Notes

1 Onsite cataloguing and data collection was carried out by Adrienne Powell. Initial analysis was carried out by James Westoby and Zoe Knapp and revised by Will Bowden with help from Naomi Sykes (to whom we are indebted).

2 Madgwick's figures in the Vrina publication (Madgwick 2019) are presented as percentages of total NISP of all taxa, whereas here they are converted to relative percentages of domesticates.

4 The human skeletons from the Triconch Palace and the Merchant's House

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Introduction

The osteological analysis of archaeologically recovered human skeletons can reveal a great deal about health status, diet, and disease in ancient communities. As skeletal tissue is capable of responding to changing functional demands and physiological stressors, recovered bones and teeth are able to record many variables in an individual's life history. Careful study of human remains and their mortuary context can also provide insight into the treatment of the dead in a society. In order to fully understand the skeletal biology, the individuals must be placed within a cultural context and it is critical to take into account both the natural and social environment in which the individual lived.

The human skeletons excavated from the Triconch Palace and the Merchant's House provide important biological evidence that contributes to our understanding of the lifeways of the late antique and medieval inhabitants of the city of Butrint. This sample of human skeletons is characterised by marked subadult mortality and relatively high frequencies of palaeopathologies, which together suggest that living conditions in the city were poor. In this chapter, the results of an interdisciplinary bioarchaeological analysis of the human remains from the Triconch Palace are presented and some implications for health and mortuary practice at Butrint are discussed.

The main goals of this study are to: (1) reconstruct the demographic profile of the human skeletons in order to understand the age and sex distribution; (2) examine the spatial configuration of the burials to determine if there are meaningful patterns that may represent kin or social groups; (3) analyse the ancient DNA to investigate patterns of maternal relatedness; (4) diagnose the observed skeletal palaeopathologies; and (5) investigate the ancient DNA to confirm the presence of specific palaeopathologies. Full summaries of the human skeletal remains are presented in Appendices 4.1 and 4.2.

Demographic profile: the Triconch Palace and Merchant's House skeletons

The first goal of the osteological analysis of the skeletons excavated from the Triconch Palace and the Merchant's House was to establish the sex and age of each individual. Roberts and Manchester (2005, 30) describe this as 'the first step towards establishing a palaeodemographic profile for a group of skeletons'. The palaeodemographic profile includes the age at death structure, the morbidity of the population and the occurrence of disease within the population (Roberts and Manchester 2005).

To date, the analysis includes a minimum of 42 individuals (34 from the Triconch Palace and 8 from the Merchant's House) recovered from defined grave contexts with associated dating evidence. On the whole, the preservation of the skeletal material from Butrint is good. While the cortical surfaces of the bones may occasionally exhibit minor erosion or exfoliation, they are largely free of significant post-mortem alterations that would preclude observations of morphological changes associated with age or pathology. In fact, evidence of palaeopathological conditions could generally be observed without difficulty.

Despite the good state of preservation of the remains, the completeness of the skeletons varies greatly from individual to individual. Sets of remains recovered from Butrint range from small portions of infant skeletons to nearly complete adults. However, even the relatively complete skeletons were typically represented by bones that, while present, were fragmentary or incomplete – probably due in large part to disturbance of the graves in antiquity. Nevertheless, among adult skeletons, portions of the skull and pelvic bones were often preserved and were able to serve as good indicators of sex and age at death. Importantly, burial conditions were favourable enough to preserve the remains of a number of young children, whose bones may be more susceptible to destruction by taphonomic agents than those of adults because of their size and comparatively poor mineral content (Gordon and Buikstra 1981; Guy *et al*. 1997).

The Triconch Palace was used as a place of burial between the 6th and 14th centuries AD. The dates of the majority of the graves fall within two broad periods: the 6th to 7th century (Phases 8 to 10) and the 10th to 12th century (Phases 12 to 14).[1] AMS radiocarbon dates for eight of the Triconch burials placed them in this 10th- to 12th-century period (Table 4.1).[2] The 6th- to 7th-century skeletal series consists of 15 individuals (one adult female and 14 subadults). Of the 14 subadults, there are two children and the remaining 12 are infants or neonates. The sample from the 10th to 12th century includes 19 individuals (six adults and 13 subadults). Of the six adults, there are four males and two females. Of the 13 subadults, there are two adolescents (one of them female), seven children, and four infants or neonates (Tables 4.2 and 4.3).

The human skeletons excavated from the Merchant's House generally date to the 13th to 14th century (Phase 14a), although the AMS radiocarbon dates of two individuals (3018 and 3023) could support an earlier date (Table 4.1). One individual (4044) has been dated to the early 6th century (Phase 7).[3] The total sample of human skeletons from the Merchant's House includes 28 individuals. However, 20 of these are disturbed skeletons recovered from topsoil contexts (2055 (× 3), 2056 (× 1), 2057 (× 3), 2060 (× 2), 2065 (× 2), 2066 (× 4), 2092 (× 1), 3029 (× 3), 3072 (× 1)). As a result, only eight individuals from proper grave contexts are included in this analysis; these consist of two adult males, three adolescents (one of them male), one child, and two infants or neonates (Table 4.4).

Sex estimation

The estimation of sex was possible for a total of nine adults and two older adolescents represented in the skeletal samples from the Triconch Palace and the Merchant's House (Tables 4.2–4.4). Sex determinations relied on a variety of standard osteological techniques. The specific methods employed during analysis were dependent on the

Table 4.1. AMS radiocarbon dates for the Triconch and Merchant's House burials

Context	Measured Age	Conventional Age	2 Sigma calibration (95% probability)	1 Sigma calibration (68% probabilty)
1189	960 +/- 40 BP	1060 +/- 40 BP	Cal AD 890-1030 (Cal BP 1060-920)	Cal AD 970-1020 (BP 980-930)
1225	1010 +/- 40 BP	1100 +/- 40 BP	Cal AD 880-1020 (Cal BP 1070-930)	Cal AD 890-990 (Cal BP 1060-960)
1259	930 +/- 40 BP	1020 +/- 40 BP	Cal AD 970-1040 (Cal BP 980-910)/Cal AD 1100-1120 (Cal BP 850-830)	Cal AD 990-1030 (Cal BP 960-920)
1406	910 +/- 40 BP	1010 +/- 40 BP	Cal AD 980-1050 (Cal BP 970-900)/Cal AD 1090-1130 (Cal BP 860-820)/Cal AD 1140-1140 (Cal BP 810-810)	Cal AD 1000-1030 (Cal BP 950-920)
1512	840 +/- 40 BP	950 +/- 40 BP	Cal AD 1010-1170 (Cal BP 940-780)	Cal AD 1030-1160 (Cal BP 920-800
1518	1050 +/- 40 BP	1150 +/- 40 BP	Cal AD 780-980 (Cal BP 1170-960)	Cal AD 870-900 (Cal BP 1080-1050)/Cal AD 920-960 (Cal BP 1040-990)
3018	750 +/- 40 BP	860 +/- 40 BP	Cal AD 1040-1100 (Cal BP 910-850)/Cal AD 1120-1260 (Cal BP 830-690)	Cal AD 1160-1220 (Cal BP 790-730)
3023	810 +/- 40 BP	930 +/- 40 BP	Cal AD 1020-1210 (Cal BP 930-740)	Cal AD 1030-1160 (Cal BP 920-790)
3060	510 +/- 40 BP	630 +/- 40 BP	Cal AD 1280-1410 (Cal BP 670-540)	Cal AD 1290-1330 (Cal BP 660-620)/Cal AD 1340-1400 (Cal BP 610-560)
5010	910 +/- 40 BP	1000 +/- 40 BP	Cal AD 980-1060 (Cal BP 970-900)/Cal AD 1080-1150 (Cal BP 870-800)	Cal AD 1010-1040 (Cal BP 940-920)
5189	970 +/- 40 BP	1060 +/- 40 BP	Cal AD 890-1030 (Cal BP 1060-920)	Cal AD 970-1020 (Cal BP 980-930)

Table 4.2. 6th- to 7th-century (Phases 8–10) Triconch Palace burials

	Sex				**Age at Death**							
		Technique(s)[a]					*Technique(s)*[a]					
Skeleton	*Sex Estimate*	*Pelvic Morphology*	*Cranial Morphology*	*Postcranial Metrics*	*Age Estimate*[b]	*Age Cohort*	*Dental Formation and Eruption*	*Diaphyseal Length*	*Epiphyseal Union*	*Pubic Symphysis*	*Auricular Surface*	*Sternal Rib Ends*
1236	F	-	-	✓	23–27	Young Adult	-	-	-	-	✓	✓
1241	-	-	-	-	3–9 mos.	Infant	✓	✓	-	-	-	-
1267	-	-	-	-	Late fetal	Fetal	-	✓	-	-	-	-
1434	-	-	-	-	4–5	Child	✓	-	-	-	-	-
1456	-	-	-	-	Late fetal	Fetal	-	✓	-	-	-	-
1548	-	-	-	-	Late fetal	Fetal	✓	✓	-	-	-	-
1782	-	-	-	-	6 mos. –1 yr.	Infant	✓	✓	-	-	-	-
3122	-	-	-	-	6 mos. –1 yr.	Infant	-	✓	-	-	-	-
3126	-	-	-	-	6–9 mos.	Infant	✓	✓	-	-	-	-
5043	-	-	-	-	1–2	Infant	✓	✓	-	-	-	-
5075	-	-	-	-	Late fetal	Fetal	✓	✓	-	-	-	-
5111	-	-	-	-	3–9 mos.	Infant	✓	✓	-	-	-	-
5384	-	-	-	-	2 mos.	Infant	✓	✓	-	-	-	-
5631	-	-	-	-	4–6	Child	✓	✓	✓	-	-	-
5641	-	-	-	-	Late fetal	Fetal	✓	✓	-	-	-	-

[a] ✓indicates technique was used; hyphen indicates technique was not used due to subadult age or to absence/poor preservation of necessary skeletal elements.

[b] All ages are in years unless otherwise indicated.

completeness and state of preservation of each skeleton. In most cases, determinations of sex were based on the morphology of the pelvic bones. Those observations focused on the morphology of the os pubis (Phenice 1969) and the greater sciatic notch (Buikstra and Ubelaker 1994; Walker 2005). Estimates of sex that considered cranial morphology used the scoring system for the expression of sexually dimorphic traits recommended by Buikstra and Ubelaker (1994). When absence or poor preservation precluded the use of the pelvis and skull (only one case), sex was estimated based on metric assessments of the postcranial skeleton following Bass (2005).

Age at death

As was the case with sex, estimates of age at death for each individual (Tables 4.2–4.4) were carried out using methods appropriate for the preservation of the recovered skeletal elements. Age estimations for adults relied on the age-related morphological changes of the pubic symphysis (Brooks and Suchey 1990), auricular surface (Lovejoy *et al.* 1985), and sternal rib ends (İşcan *et al.* 1984; 1985). Subadult age estimates focused on the sequence of tooth formation and eruption (Ubelaker 1984) when portions of the dentition were available. Subadults were also aged using diaphyseal length measurements and epiphyseal union when appropriate (Scheuer and Black 2004).

The age-at-death estimates for the individuals from Triconch range from ‘Late Foetal’ to ‘45–60 years’, comprising a total of 21 different age categories. In order to standardise the scale of the data, they were organised into the age cohorts recommended by Buikstra and Ubelaker (1994, 9): Foetal (< birth), Infants (birth–3 years), Children (3–12 years), Adolescents (12–20 years), Young Adults (20–35 years), Middle Adults (35–50 years), and Old Adults (50+ years). As mentioned above, nearly all (14/15; 93.3%) of the individuals dated to the 6th to 7th century are subadults (see also Bowden 2011, 312–13). Only one adult, a young female (1236), can be dated to that period. The largest group of subadults is the Infant group (n=7; 46.7% of the total), followed by the Foetal group (n=5; 33.3 % of the total), and finally the Child group (n=2; 13.3 % of the total). No adolescents were recovered from proper grave contexts dating to the 6th to 7th century at the Triconch Palace (Table 4.2).

The demographic profile of the 10th- to 12th-century skeletal sample is somewhat different. First, adults constitute a much larger proportion (6/19; 31.6%) of the individuals buried at the Triconch Palace during this later period. The Young Adult and Middle Adult categories each contained two individuals, one male and one female. Two individuals are also included in the Old Adult category, but in this case

Table 4.3. 10th- to 12th-century Triconch Palace burials

		Sex			**Age at Death**							
		Technique(s)[a]					*Technique(s)*[a]					
Skeleton	*Sex Estimate*	*Pelvic Morphology*	*Cranial Morphology*	*Postcranial Metrics*	*Age Estimate*[b]	*Age Cohort*	*Dental Formation and Eruption*	*Diaphyseal Length*	*Epiphyseal Union*	*Pubic Symphysis*	*Auricular Surface*	*Sternal Rib Ends*
1181	-	-	-	-	Late fetal	Fetal	✓	✓	-	-	-	-
1188	-	-	-	-	11–13	Child	✓	✓	-	-	-	-
1189	Male	✓	✓	✓	30–45	Middle Adult	-	-	-	✓	-	-
1224	-	-	-	-	5–7	Child	✓	✓	-	-	-	-
1225	-	-	-	-	4–6	Child	✓	✓	-	-	-	-
1226	Male	✓	✓	✓	45–60	Old Adult	-	-	-	-	✓	-
1229	-	-	-	-	3–6 mos.	Infant	-	✓	-	-	-	-
1259	-	-	-	-	10–12	Child	-	✓	✓	-	-	-
1264	-	-	-	-	6–8	Child	-	✓	-	-	-	-
1406	-	-	-	-	3–5	Child	✓	✓	-	-	-	-
1509	-	-	-	-	3–6 mos.	Infant	✓	✓	-	-	-	-
1512	-	-	-	-	6 mos. –1 yr.	Infant	✓	✓	-	-	-	-
1518	Male	✓	-	-	40+	Old Adult	-	-	-	✓	-	✓
1764	Male	✓	-	-	25–35	Young Adult	-	-	-	✓	✓	✓
1791	Female	✓	✓	✓	20–30	Young Adult	-	-	✓	-	-	✓
5010	Female	✓	✓	-	35–45	Middle Adult	-	-	-	-	✓	-
5189	-	-	-	-	12–15	Adoles.	✓	✓	✓	-	-	-
5319	Female	✓	✓	✓	15–17	Adoles.	✓	✓	✓	-	-	-
5324	-	-	-	-	4–5	Child	✓	✓	✓	-	-	-

[a] ✓indicates technique was used; hyphen indicates technique was not used due to subadult age or to absence/poor preservation of necessary skeletal elements.

[b] All ages are in years unless otherwise indicated.

both are males. The age distribution of the subadults included in the 10th- to 12th-century sample also distinguishes this group from the sample dated to the 6th to 7th century. Most subadults (n=7; 36.8% of the total) in the later sample are children rather than infants. The Infant group is the second largest (n=3; 15.8% of the total), followed by the Adolescent group (n=2; 10.5% of the total), and the Foetal group (n=1; 5% of the total). The sex of one of the adolescents was determined to be female (Table 4.3).

Among the smaller sample of human skeletons recovered from proper graves in the Merchant's House, two individuals (both male) were young adults at the time of death. The remaining six individuals – all subadults – include three adolescents, one child, one infant, and one individual whose long bone development is consistent with a full-term foetus or possibly a neonate (Table 4.4).[4]

Regional comparison

The large proportion of subadults is a striking feature of the human skeletal remains from the Triconch Palace. This is most clear and dramatic among the 6th- to 7th-century burials, which contained an overwhelming number of infants and young children (Fig. 4.1). Including skeleton 4044 from the Merchant's House, only one of 16 individuals buried at the Triconch Palace during the 6th to 7th century was an adult. Furthermore, individuals whose estimated ages place them in the Foetal and Infant categories make up 86.6% (13/15) of the subadults from this period. The two additional subadult individuals were young children, with estimated ages of 4–5 years and 4–6 years. While ancient skeletal samples typically include a large proportion of juveniles due to high rates of child mortality (Buikstra and Ubelaker 1994), it is difficult to locate a similar age at death distribution that was not generated from an infant cemetery.

Table 4.4. Merchant's House burials

	Sex				Age at Death							
	Technique(s)[a]						*Technique(s)*[a]					
Skeleton	*Sex Estimate*	*Pelvic Morphology*	*Cranial Morphology*	*Postcranial Metrics*	*Age Estimate*[b]	*Age Cohort*	*Dental Formation and Eruption*	*Diaphyseal Length*	*Epiphyseal Union*	*Pubic Symphysis*	*Auricular Surface*	*Sternal Rib Ends*
3018	-	-	-	-	12–14	Adoles.	-	✓	✓	-	-	-
3023	Male	✓	-	-	25–35	Young Adult	-	-	-	-	-	✓
3060	-	-	-	-	13–15	Adoles.	-	-	✓	-	-	-
3396	Male	✓	-	✓	20–25	Young Adult	-	-	✓	✓	-	✓
4015	Male	✓	-	-	16–20	Adoles.	-	-	✓	-	-	✓
4044	-	-	-	-	Late fetal	Fetal	-	✓	-	-	-	-
4138	-	-	-	-	5–7	Child	✓	✓	✓	-	-	-
4151	-	-	-	-	6 mos.–1 yr.	Infant	✓	✓	-	-	-	-

[a] ✓ indicates technique was used; hyphen indicates technique was not used due to subadult age or to absence/poor preservation of necessary skeletal elements.

[b] All ages are in years unless otherwise indicated.

*Table 4.5. Regional comparison of age at death distributions. *includes skeleton 4044 from the Merchant's House, which dates to the 6th century*

Age Category	6th–7th c. Triconch*		Štrbinci		Zmajevac		Vinkovci-Gepid		Croatia Composite	
	N	%	N	%	N	%	N	%	N	%
Foetal–3 years	14	82.35	1	3.85	2	5.40	1	294	4	4.12
3–12 years	2	11.76	6	23.08	6	16.22	5	14.70	17	17.53
12–20 years	0	0.00	2	7.69	3	8.11	6	17.65	11	11.34
20–35 years	1	5.88	9	34.61	6	16.22	13	38.24	28	28.87
35–50 years	0	0.00	6	23.08	11	29.73	5	14.71	22	22.68
50+ years	0	0.00	2	7.69	9	24.32	4	11.76	15	15.46
Total	n=17	100%	n=26	100%	n=37	100%	n=34	100%	n=97	100%

As immature individuals make up such a large proportion of the skeletal samples from the Triconch Palace, efforts were taken to compare the data from Butrint against data published on other sites in the region. Slaus' (2002) assessment of age, sex, and indicators of health from a number of Croatian sites includes three late antique cemeteries with skeletal sample sizes comparable to Butrint. The data on age at death from Štrbinci (4th century AD), Zmajevac (4th century AD), and Vinkovci-Gepid (mid-6th century AD) were reorganised into the age cohorts recommended by Buikstra and Ubelaker (1994) and are reproduced along with the results from 6th- to 7th-century Triconch in Table 4.5. The Croatian sites are characterised by a much more even distribution of individuals across age at death categories.

Additional sites in the region with relatively small skeletal samples show patterns consistent with Šlaus' data (Fig. 4.2). For example, Rife (2012) reports that 32.76% (19/58) of the late Roman to early Byzantine (4th to 7th or 8th centuries) skeletons from Isthmia represent subadults. At nearby Corinth, a greater proportion of adults to subadults was found among both simple tile graves (7:4) and more elaborate rock-cut graves (110:43) from the 4th- to 6th-century Lerna Hollow Cemetery (Wesolowsky 1973). Similarly, Salvadei *et al.* (2001) report that the number of adults from the cemetery associated with the 7th-century rural community of La Selvicciola is nearly twice that of subadults (80:43). Furthermore, individuals in the first three to four years of life made up only 30.2% (13/43) and 24.14% (14/58) of the total number of subadults at La Selvicciola and Isthmia, respectively.[5]

The over-representation of young juveniles among the

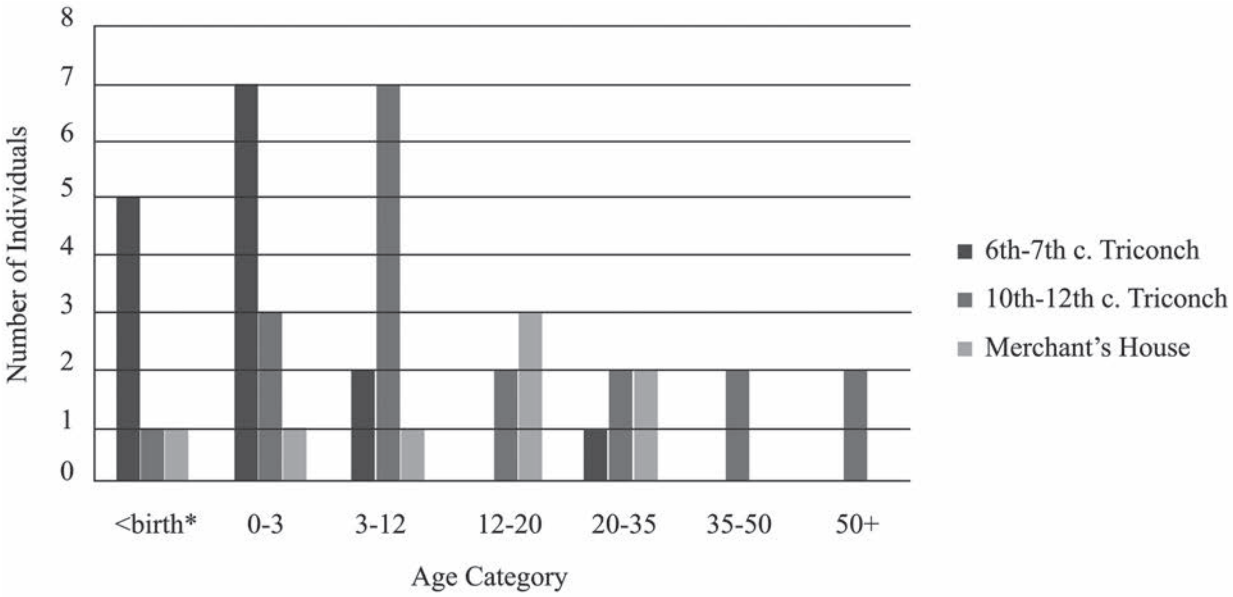

Figure 4.1. Age at Death distributions of the Triconch Palace and Merchant's House skeletal samples

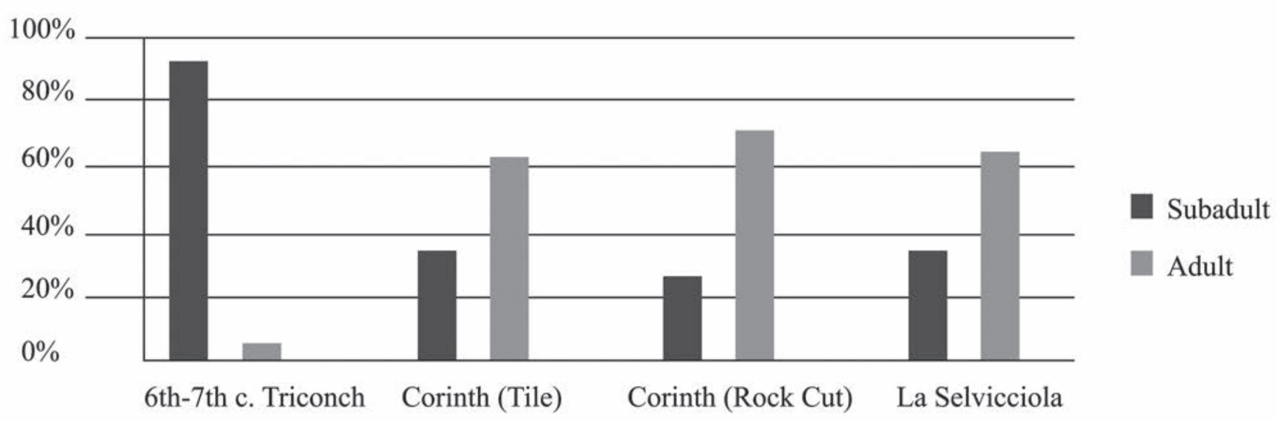

Figure 4.2. Proportion of Subadults to Adults in late antique skeletal samples

6th- to 7th-century Triconch burials might be attributed to highly pathogenic conditions, problems related to weaning, or a major change in the environment or access to resources at Butrint. However, the near absence of adults and adolescents strongly suggests that the Triconch Palace served as a place of burial reserved almost exclusively for infants and young children during late antiquity.

While adults do appear more frequently among the medieval burials at Triconch, subadults remain over-represented (Fig. 4.3). Subadults were found in 68.4% (13/19) of the 10th- to 12th-century burials at the Triconch and 71.4% (5/7) of the 13th- to 14th-century burials from the Merchant's House. Comparative data from several contemporaneous sites in Greece suggest that the explanations for the demographic patterns at 6th- to 7th-century Butrint may, to a lesser extent, apply to the medieval period as well. For example, Burns (1982) reports that subadults make up 41.8% of the total sample from Byzantine Corinth. Additionally, a similar proportion of subadults (35.1%; 71/202) has been observed in a 10th- to 11th-century skeletal sample from Korytiani in northwest Greece, less than 70 km from Butrint (Papageorgopoulou and Xirotiris 2009).

Interestingly, the Byzantine cemetery of Xironomi in Boeotia, dated to the 10th to 11th century, presents a number of parallels with the situation at the Triconch Palace. First, subadults form 65.5% (36/55) of the total skeletal sample – a figure close to those seen at medieval Butrint (Tritsaroli and Valentin 2008). Second, like the samples from Butrint, the individuals from Xironomi exhibit high prevalence rates of palaeopathological conditions. Finally, individuals buried together at Xironomi share dental features with a genetic component and may thus represent family groupings, which may also exist at Butrint. Tritsaroli and Valentin attribute the over-representation of subadults at Xironomi to weaning stress and limited access to adequate nutrition, combined with a desire to bury infants and children experiencing those problems in a particular location (in this case, around and

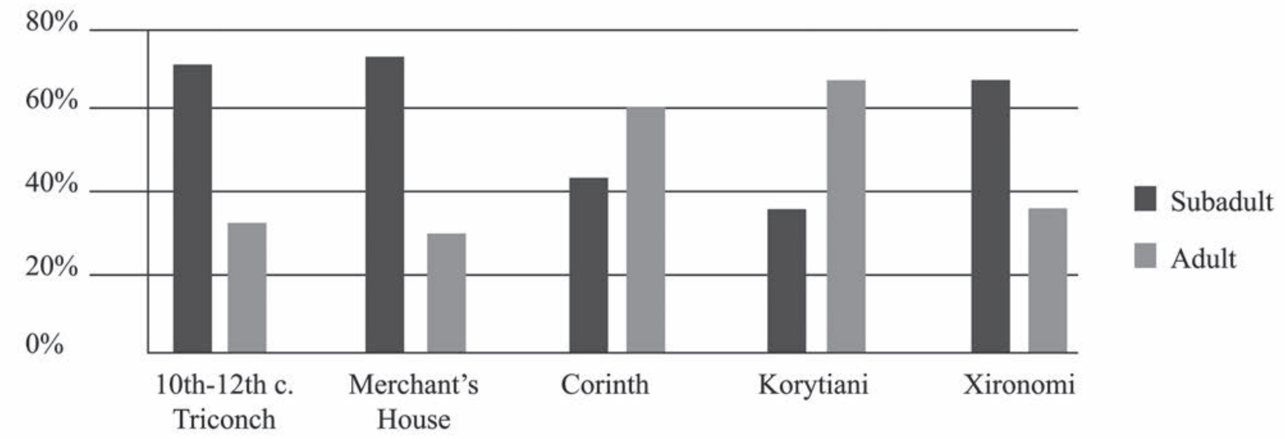

Figure 4.3. Proportion of Subadults to Adults in medieval skeletal samples

within a church). While the cemetery at Xironomi is larger and more organised than the collection of burials from the Triconch Palace, the similarities between the two skeletal samples are noteworthy. It is probable that some of the same environmental circumstances and social considerations contributed to the formation of each assemblage.

The spatial arrangement of the skeletons

The second goal of this study was to examine the spatial organization of the graves from the Triconch Palace and the Merchant's House and to identify clusters of individuals that may represent family burial areas. The spatial arrangement of the Triconch Palace and the Merchant's House graves indicates the presence of several clusters (Fig. 4.4; see also Bowden and Hodges 2011a, chapters 3–6), which in some cases relate to distinct phases of burial. DNA analysis was used to identify possible familial relationships. This analysis also suggested that these clusters of graves may represent different types of populations in the late antique and medieval periods.

Late antique burial groups

Two clusters of burials were identified as belonging to Phase 10 (AD 575–650) (Fig. 4.5). Although in some cases the stratigraphy associated with these burials was uncertain, in other instances they could be dated with relative precision based on the amphorae that were used as burial containers.

ROOM 18 EAST

Room 18 (the long gallery) is located in the southern wing of the Triconch Palace. A cluster of six graves was found in the east end of this room, all placed with varying degrees of confidence in Phase 10 (AD 575–650) (Bowden *et al.* 2011d, 112–15). This cluster includes individuals 1211, 1236, 1241, 1267, 1756, and 5043. These six graves display varying orientations, with at least two (1267 and 1756) apparently aligned on surviving walls of the building. Skeleton 1236 is that of an adult female estimated to be 23 to 27 years old. The other five individuals were all subadults: 1211 was late foetal; 1241 is a 3- to 9-month-old; 1267 was late foetal; 5043 is estimated to be a 1- to 2-year-old.[6]

ROOM 18 WEST

The west end of Room 18 contained a cluster of graves that exhibit approximately east–west orientations (Bowden *et al*. 2011d, 112–13). This cluster includes 5075 and 5111, both of which were subadults: 5075 was late foetal; 5111 is estimated to be 3 to 9 months old.

ROOM 22

Room 22 contained three graves that were dated to the 6th century (Bowden *et al*. 2011d, 111–12), though they are not clustered together in the same way as those found in Room 18. The individual represented by Skeleton 1456, estimated to be late foetal, was buried in a north–south orientation parallel to the east wall of the room. Skeleton 3126, an infant estimated to be 6 to 9 months old, occupied a grave near the centre of the room. Finally, Grave 3123, located in the southwest corner, contained Skeleton 3122, a second infant estimated to be 6 months to 1 year old. The graves for skeletons 3126 and 3122 were oriented approximately east–west.

Medieval burial groups

Two distinct groups of burials were placed in Phase 12 (early to late 10th century) (Fig. 4.4), although it is likely that the burial sequence extends beyond this date. These burials, some of which were dated by AMS radiocarbon analysis, were characterised by stone-lined graves and had a much lower number of infants represented. A further burial group, placed in Phase 14a (13th to 14th century), was noted in the Merchant's House area.

ROOMS 14 AND 17 (NORTH WING)

A significant cluster of human graves can be seen in Room 17 (Fig. 4.6) of the Triconch Palace, where a total of nine graves have been excavated (Bowden *et al*. 2011b, 129–31). Seven of the burials (skeletons 1188, 1189, 1224, 1225, 1226, 1229, and 1259) were clustered in a small area at

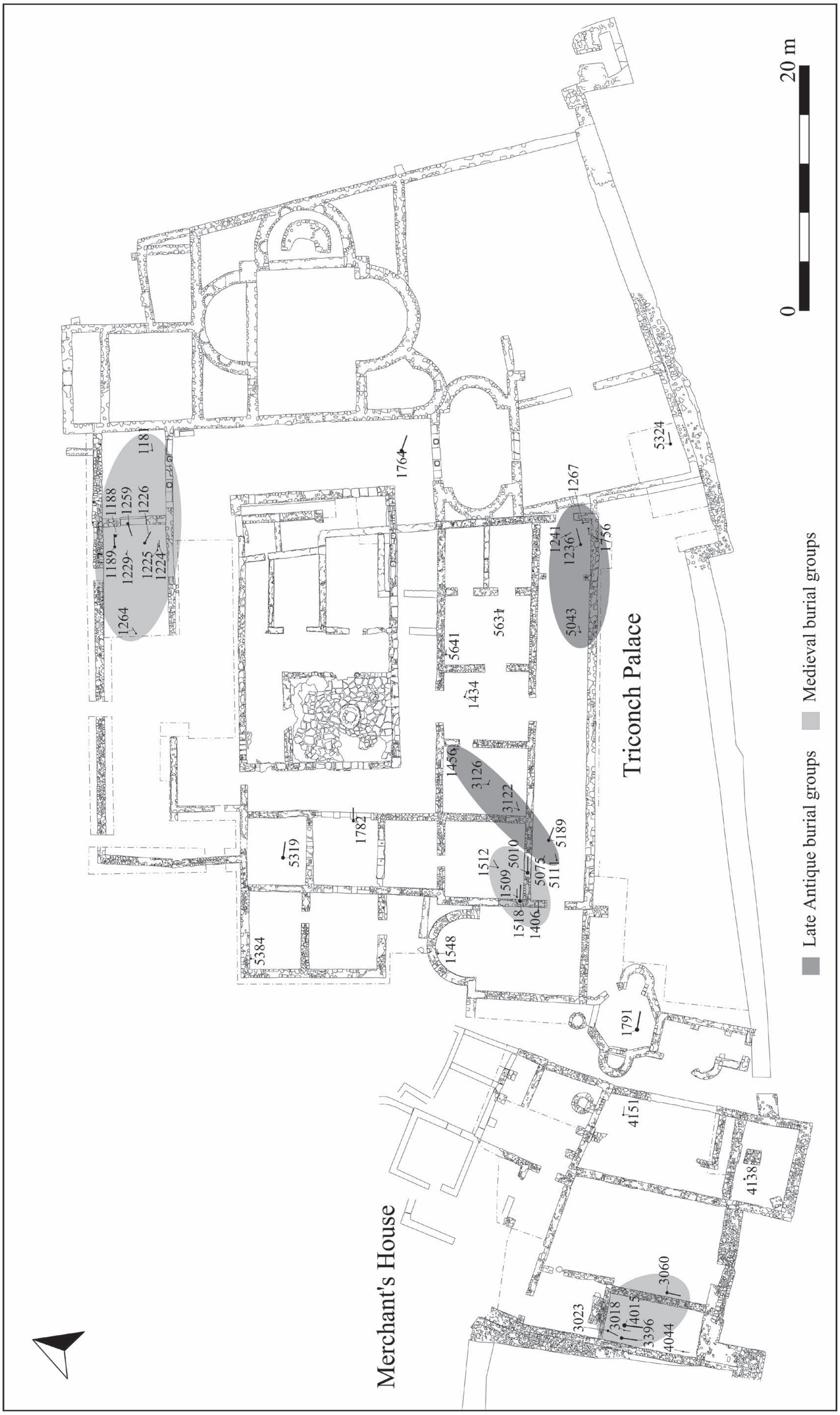
Merchant's House
Triconch Palace
0
20 m
▨ Late Antique burial groups
▨ Medieval burial groups
1181
1188
1259
1226
1189
1229
1225
1224
1264
1764
5324
1267
1241
1236
1756
5043
5641
5631
1434
1456
3126
3122
5189
1782
5319
1512
5010
5075
5111
1509
1518
1406
5384
1548
1791
4151
4138
3060
3023
3018
4015
3396
4044

Figure 4.4. Location plan of all burials showing the phased burial clusters

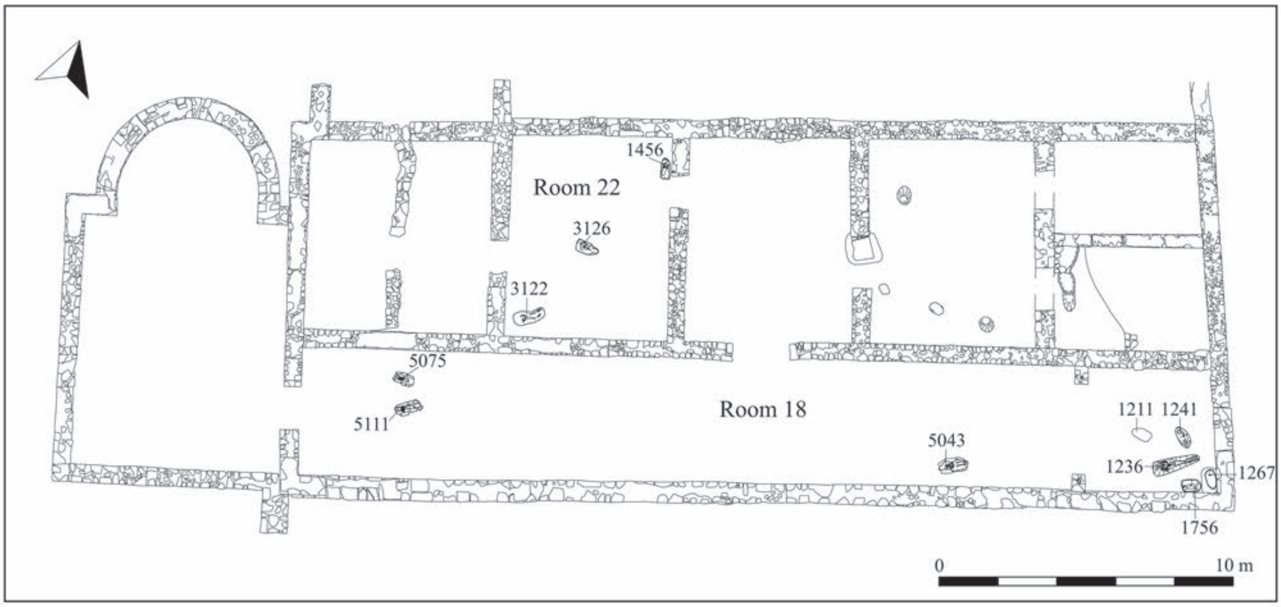

Figure 4.5. Late antique phased burial clusters in Rooms 18 and 22

the eastern end of Room 17. These seven skeletons all exhibited very approximate east–west orientations. They comprised two adults (1189 and 1226) and five subadults (1188, 1224, 1225, 1229, and 1259). Skeleton 1189 was an adult male estimated to be 30 to 45 years old, and 1226 was also an adult male estimated to be 45 to 60 years old. The estimated ages of the subadult individuals are as follows: 1188, 11 to 13 years old; 1224, 5 to 7 years old; 1225, 4 to 6 years; 1229, 3 to 6 months old; and 1259, 10 to 12 years old.

A further grave (Skeleton 1264) was excavated just west of this large cluster in Room 17. The individual is estimated to be 6 to 8 years of age and was placed in a northeast–southwest orientation. A further neonate burial (1181) in Room 14 may also date to this period.

ROOMS 23 AND 24 (SOUTH WING)

Room 23 is located just north of the west end of Room 18 and contained a cluster of four graves with a northeast to southwest orientation (skeletons 1509, 1512, 1518 and 5010), the last of which was cut into the levelled wall foundation between Rooms 18 and 23 (Fig. 4.6). A further grave (1408, containing Skeleton 1406) was cut into the wall between Rooms 18 and 24 and is also included in this group (Bowden *et al.* 2011b, 125–9). Skeleton 1509 is estimated to be 3 to 6 months old; Skeleton 1512 is estimated to be 6 months to 1 year old; and Skeleton 1518 was an adult male of more than 40 years of age. Skeleton 5010 was an adult female estimated to be 35 to 45 years old and 1406 was a child of 3 to 5 years. It is possible that these individuals are associated with the individuals buried at the west end of Room 18 (discussed above), although the available evidence suggests that the latter are of late antique date.

MERCHANT'S HOUSE ROOM 40

An additional cluster of graves dating to the 13th to 14th century (Phase 14a) was identified on the western side of the Merchant's House area, in deposits above the remains of Room 40 (Bowden *et al.* 2011a, 219–23) (Fig. 4.7). Five graves were excavated from Room 40, all with a similar north–south orientation (skeletons 3018, 3023, 3060, 3396, and 4015). Of the five, there were two adults and three adolescents. Both of the adults were males: 3023 was estimated to be 25 to 35 years old; and 3396 was estimated to be in his early 20s. The three adolescents were as follows: 3018 was aged 12 to 14 years; 3060 was aged 13 to 15 years; and 4015 was a male estimated to be 16 to 20 years old.

Discussion of the spatial configuration of graves

There are a number of possible explanations for these burial clusters. Do the skeletons recovered from specific rooms of the ruined Triconch Palace and Merchant's House represent membership of some recognisable kin, ethnic, or social group? Goldstein's (1976) results imply that there is a robust association between spatially distinct cemeteries and their exclusive use by certain descent groups.

To address this issue, DNA sampling was undertaken on all of the human skeletons recovered from the rooms within the Triconch Palace and the Merchant's House in order to investigate the possibility of familial relatedness among the individuals buried in each room. The analysis of the ancient DNA of these samples was subsequently performed at the Michigan State University Forensic Biology Laboratory under the direction of Dr David Foran.

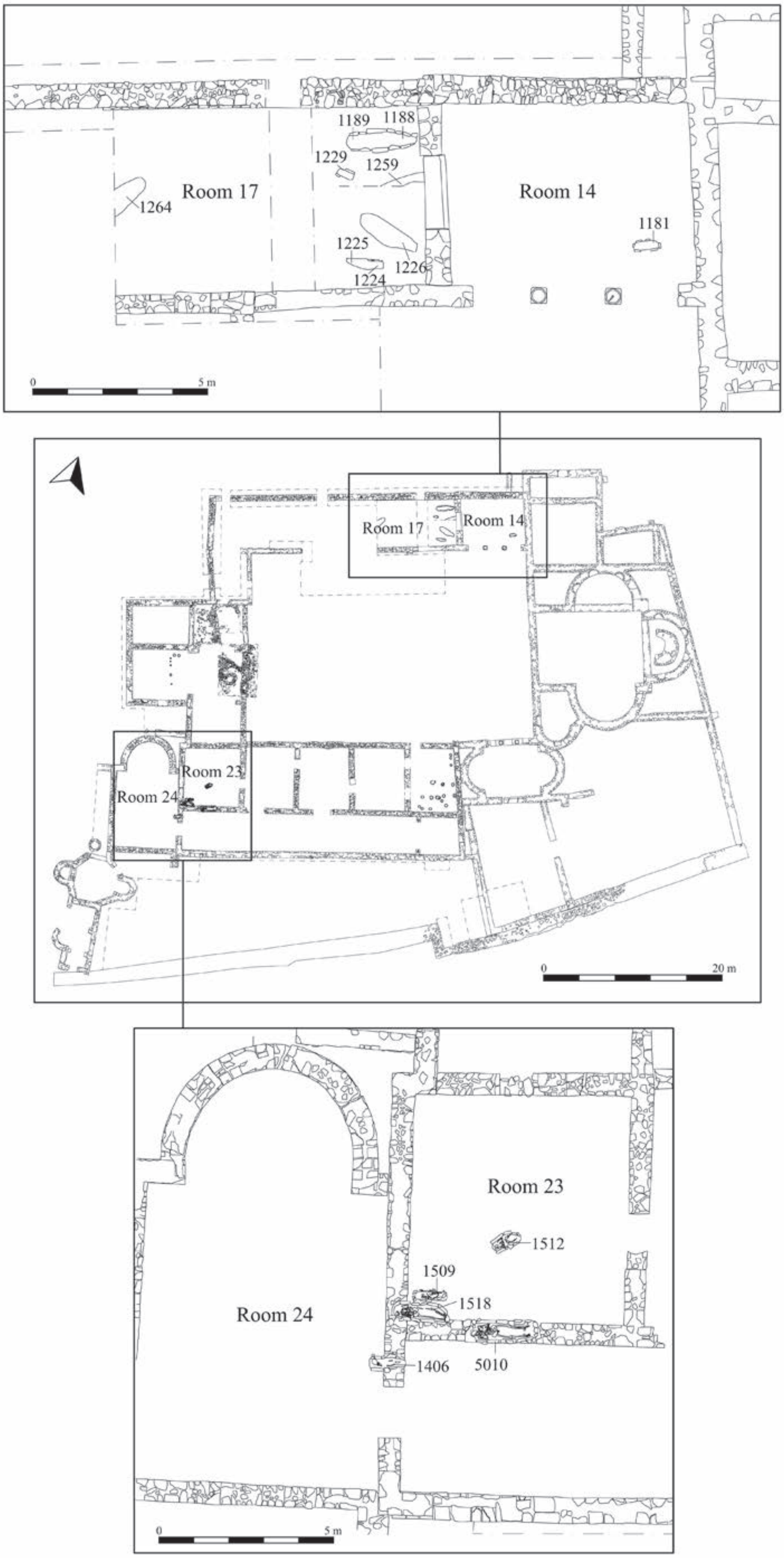
1189
1188
1229
1259
Room 17
1264
Room 14
1181
1225
1226
1224
0
5 m
Room 17
Room 14
Room 23
Room 24
0
20 m
Room 23
1512
1509
1518
Room 24
1406
5010
0
5 m

Figure 4.6. Medieval phased burial clusters in Rooms 14, 17, 23 and 24

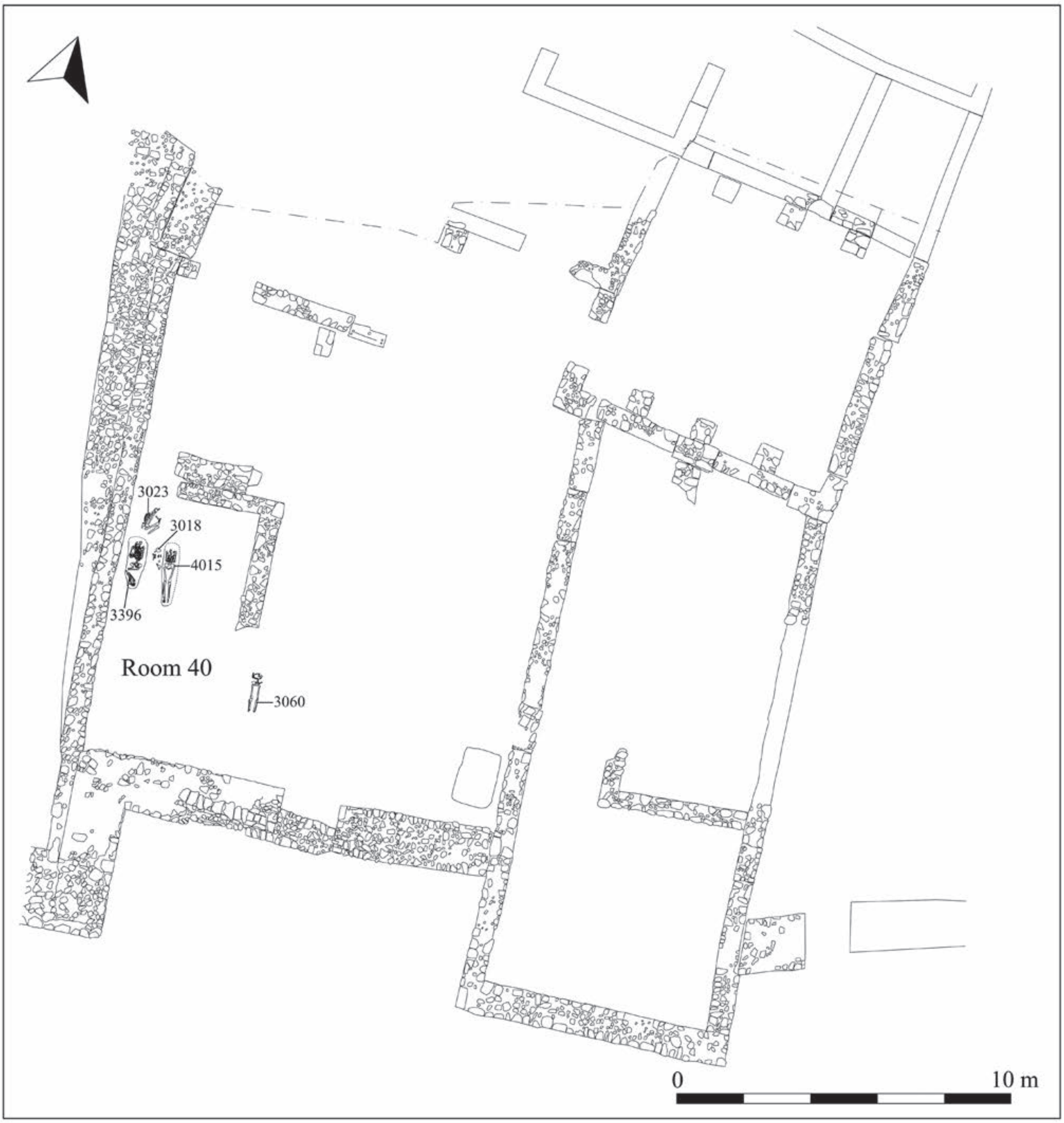

Figure 4.7. Medieval phased burial cluster in Room 40 of the Merchant’s House

MITOCHONDRIAL DNA ANALYSIS: EVIDENCE FOR MATERNAL RELATEDNESS IN THE TRICONCH PALACE AND THE MERCHANT’S HOUSE SKELETONS

The hypothesis that the clusters of human burials at the Triconch Palace and the Merchant’s House represent family burial plots can be addressed using mitochondrial DNA (mtDNA), particularly as this molecule is shared among all maternal relatives, sidestepping the complications of genetic recombination that occur with nuclear DNA analyses. Mitochondrial DNA typing of individuals buried within the Triconch Palace and the Merchant’s House was undertaken by Christina Rauzi. Thirty-one individuals were tested, involving 58 bones, 61 DNA isolations, more than 650 amplification attempts, and 130 mtDNA sequencing trials. One to three bone fragments were processed from each individual, based on availability.

The two hypervariable (HV) segments of the mitochondrial control region were examined: HV1 ranging from position 15989 to 16207, and HV2 from position 15 to 285 (Anderson *et al*. 1981). Bone was drilled using a 1/16 inch titanium drill bit, and DNA extracted from the

Table 4.6. Haplotypes in the Triconch Palace and Merchant's House

Room	*Skeleton*	*Phase*	*Sex*	*Age*	*Haplotype*
17	1188	12		11 – 13 yrs	2
	1189	12	Male	30 – 45 yrs	1
	1224	12		5 – 7 yrs	2
	1225	12		4 – 6 yrs	3
	1226	12	Male	45 – 60 yrs	3
	1229	12		3 – 6 mos	1
	1259	12		10 – 12 yrs	1
	1264	12		6 – 8 yrs	1
	1185	12		Adult	1
18 East	1236	10	Female	23 – 27 yrs	1
	1267	10		Late fetal	5
	1241	10		3 – 9 mos	No sequence data
	5043	10		1 – 2 yrs	1
18 West	5075	10		Late fetal	No sequence data
	5111	10		3-9 mos	1
	5189	12		12 – 15 yrs	7
20	5631	8		4 – 6 yrs	4
	5641	8		Late fetal	1
22	1452	10?		3 – 6 mos	9
	1456	10		Late fetal	1
	3122	10		6 mos – 1 yr	1
	3126	10		6 – 9 mos	1
23	1509	12		3 – 6 mos	2
	1512	12		6 mos – 1 yr	1
	1518	12	Male	40+	1
	5010	12	Female	35 – 45 yrs	2
24	1406	12		3 – 5 yrs	6
	1548	10		Late fetal	8
Merchant's House	3018	14a		12 – 14 yrs	1
	3023	14a	Male	25 – 35 yrs	1
	3060	14a		13 – 15 yrs	1

resultant powder (ca. 20–50 mg) using a standard organic technique (Rennick *et al*. 2005). Sequencing was done in-house on a Beckman CEQ 8000 using Beckman Quick Start Sequencing Kits. DNA isolations and amplifications/analyses were conducted in separate, dedicated laboratories, and included complete reagent blanks and negative PCR controls. Whenever possible multiple bones from an individual, processed separately, were used to assign haplotypes, which are combinations of DNA sequences that are inherited together. Sequences that could not be readily differentiated based upon unique polymorphisms were pooled into a group of 'undifferentiated' individuals. Those individuals were not looked upon as necessarily maternally related, but only as lacking the resolution required to make a confident haplotype call (generally due to small stretches of sequence obtained, or the presence of ambiguous sequences in which a base could not be cleanly called after multiple amplification/sequencing attempts).

Resultant mtDNA haplotypes are displayed in Table 4.6. Eight distinct haplotypes in addition to the undifferentiated haplotype were found, most of which were assigned based on HV2 polymorphisms. For simplicity, haplotypes were designated in a most-to-least prevalent manner, with the undefined haplotype (haplotype 1) assigned to the largest number of individuals (17 in all), although it should be noted that all of these individuals produced very common mtDNA sequences, largely indistinguishable from the reference sequence (Anderson *et al.* 1981). Allocation to haplogroups related to particular geographical regions was not possible, although a subset of the individuals could tentatively be identified as belonging to haplogroup J, but in general the condition of the skeletal remains resulted in ambiguous mtDNA sequences, such that haplogroup could not be determined.

12 other individuals could be assigned to distinct haplotypes. Four individuals shared haplotype 2, which was characterised by a C to T transition at position 150 and an A to G transition at position 263. Haplotype 3 was shared

by two individuals, characterised by a C at position 199, a C at position 204, and a G at position 263. Haplotypes 4 through 9 were determined to be unique – each occurring in only one individual.

Some patterns were observed in the burial location of different haplotypes, most notably that individuals with distinctive shared haplotypes were found close to each other within the site (Plate 4.1). Skeletons 1188 (11 to 13 years old) and 1224 (5 to 7 years old) shared haplotype 2 and were located in the medieval burial cluster in Room 17. Two additional individuals, sharing haplotype 3 (1225: 4 to 6 years old, and 1226: 45- to 60-year-old male), were found in the same Room 17 cluster. The other two burials that shared haplotype 2 (5010: 35- to 45-year-old female, and 1509: 3 to 6 months) were found in Room 23 (with 5010 cut into the top of the wall foundation that divided the Rooms 23 and 18). All of these burials were in an approximate east–west/southeast–northwest orientation.

In contrast, four of the six individuals who were found to have a unique haplotype were dated to the earlier period and were sometimes buried by themselves. Skeleton 5631 (haplotype 4; 4 to 6 years old) was located in Room 20 and was not clustered with other remains. Likewise, Skeleton 1548 (haplotype 8; late foetal) was found in Room 24, spatially separated from other burials. Skeleton 1452 (3 to 6 months old), assigned haplotype 9, was found in a rubble layer in Room 22. At the eastern end of Room 18, Skeleton 1267 (late foetal) was assigned haplotype 5, while Skeleton 5189 (12 to 15 years old) was assigned haplotype 7. The two individuals who were clearly of medieval date were Skeleton 1406 (3 to 5 years old; found on the levelled remains of the wall between Rooms 18 and 24), assigned haplotype 6, and Skeleton 5189 (12 to 15 years; found at the western end of Room 18), assigned haplotype 7.

The hypothesis that family units were buried in particular areas is neither fully supported nor completely rejected by the genetic data. Individuals with distinct, shared haplotypes were buried adjacent to one another, although the four individuals who shared haplotype 2 were found in two separate areas. Interestingly, Room 17 contained two individuals that shared haplotype 2 (subadults 1188 and 1224) as well as two individuals that shared haplotype 3 (subadult 1225 and adult male 1226). The shared mitochondrial haplotype between the two children (1188 and 1224) suggests a sibling relationship but the child and adult male (1225 and 1226) present a more complicated situation. Since mitochondrial DNA haplotypes are maternally inherited, the results do not indicate that this man is the father of the child, but could be a maternal uncle or sibling buried decades apart.

The other haplotype 2 individuals (adult female 5010 and infant 1509) were buried in Room 23/18. This woman and child pairing is indicative of a standard family unit. Their relationship to the two haplotype 2 subadults in Room 17 is difficult to ascertain beyond potential maternal relatedness. Given that the burials are not precisely dated, simple possibilities such as siblings buried decades apart or different generations of the same family must be considered.

The majority of individuals in the Triconch Palace and the Merchant's House displayed a very 'generic' European haplotype and no distinct polymorphisms, and thus could not be readily differentiated. Haplotype 1 was basically the same as the reference sequence used to compare mtDNA haplotypes (Anderson 1981, less 263G), and is extremely common. Many in this group generated one or a small number of ambiguous base calls (often observed in ancient material), but when those calls were removed, none had polymorphisms that could differentiate it from the others (as could be done for haplotypes 2–9). Given the results, two hypotheses exist for haplotype 1. The first is that these individuals were largely unrelated, but the mtDNA sequences obtained did not have the resolution to differentiate them. The second is that the individuals, or a subset(s) of them, were indeed maternally related. Had haplotype 1 in some way been rare or unique, this possibility would be extremely intriguing, pointing to a strong matrilineal culture during this time period at Butrint. Biologically, however, given the commonness of haplotype 1 (observed even among present-day Caucasians), the findings are equally consistent with an overall small population in the region, with genetic similarity being the result of a founder effect and having little to do with cultural influences at the site.

Given the limited number of burials from which genetic analyses could be attempted, the large number of children present, the grouped burials, and the highly degraded and mutated state of the skeletal DNA, the identification of a minimum of nine distinct haplotypes might be considered somewhat remarkable. This genetic variability would indicate that a quite diverse group of individuals was using the Triconch Palace as a burial ground, as opposed to a small number of families persisting over time. It is interesting to note that the individuals designated as having unique haplotypes (haplotypes 4 through 9) were all infants and young children, with the exception of one adolescent (burial 5189). Four of those burials (1267, 1452, 1548, and 5631) are dated to the 6th to 7th century, while the other two (1406 and 5189) date to around the 10th century. It seems plausible that the Triconch area may have been acting as a migratory stop-over during late antiquity and, perhaps to a lesser extent, the medieval period (see Bowden 2011, 313). Alternatively, living conditions were precarious enough that many families did not remain in the area for long, the only indication of their presence being the burial of a child.

In contrast, individuals with shared haplotypes 2 and 3 were buried in close proximity to one another and have all been dated to around the 10th century AD.[7] Haplotype 2 was assigned to an 11- to 13-year-old and a 5- to 7-year-old found in one burial cluster, while the other individuals sharing that haplotype – an adult female and a 3- to 6-month-old child – were together in a second burial

Table 4.7. Prevalence of vertebral osteoarthritis in the Triconch Palace skeletons

	Cervical			Thoracic			Lumbar		
	N	*n*	%	*N*	*n*	%	*N*	*n*	%
TP 6th–7th c.	1	0	0	1	0	0	1	0	0
TP 10th–12th c.	6	4	66.7	6	6	100	6	3	50
MH	3	1	33.3	3	2	66.7	3	0	0

N = number of adults with observable articular facets; *n* = number of individuals affected by osteoarthritis.

cluster. Likewise, the two individuals assigned haplotype 3 (an adult male and a 4- to 6-year-old child) were buried close together. This seems to be an unlikely coincidence given the rarity of shared, distinct mtDNA haplotypes found at Butrint, and points to burials that were purposefully placed in proximity to one another. Of interest, however, is the age difference found in two of the shared burials. An adult female and child could certainly indicate a mother-child relationship, while the adult male-child combination does not indicate parent-offspring. Naturally one can only speculate on what occurred at the time, but it is interesting to consider an uncle and niece or nephew being buried together, or that an individual far outlived a sibling who was interred at an early age, and was later deliberately buried in close proximity.

Skeletal palaeopathology

The fourth goal of this study was to examine macroscopically all cortical surfaces for evidence of skeletal palaeopathologies, including metabolic and endocrine disease, infectious disease, joint disease, neoplastic disease, congenital disease, dental disease, and trauma. The goal of the palaeopathological analyses was to identify the presence of specific skeletal pathologies that may shed light on the living conditions at Butrint during this time period.

It is important to note that the skeletons from Butrint are skeletal series, and do not represent complete populations. As Hinkes (1983, 20) points out, in cases like this 'it is an undeniable fact that we will never know how representative the excavated skeletal sample is of the total mortuary population or, more importantly, of the total population once living at this or any site.' To be accurate, the skeletal series from Butrint are mortality samples. This means that the recovered skeletons represent some portion of the individuals who died and were buried in the city. As Cook and Buikstra (1979) point out, it cannot be assumed that the frequency of pathological conditions in the dead reflects the frequencies in the living. As a result, statements made in this chapter reflect the results of the analyses of the mortality sample and it is not known whether this accurately reflects the lifeways of all living individuals at Butrint in late antiquity and the medieval period.

Vertebral osteoarthritis

Each adult skeleton was examined for the presence of joint surface alterations such as erosion and pitting that are associated with osteoarthritis. The etiology of this condition is multifactorial – factors such as age, sex, weight, genetics, nutrition, disease, trauma, and movement influence its development (Roberts and Manchester 2005; Waldron 2009; Weiss and Jurmain 2007). However, high levels of physical activity and associated biomechanical stress, perhaps especially when experienced early in life, are viewed as having the greatest influence on the appearance and expression of osteoarthritis (Goodman *et al*. 1984; Larsen 1997; Weiss and Jurmain 2007). While osteoarthritis cannot be linked reliably with any specific activity, it provides an important general measurement of activity-related stress (Bridges 1994; Jurmain and Kilgore 1995).

Data collection for this condition focused on degenerative changes in the vertebral column. Greatest attention was given to pitting and eburnation affecting the superior and inferior facets that articulate adjacent vertebrae. This is because those forms of surface alterations have been suggested to be more closely associated with biomechanical stress than marginal osteophytes, which appear to correlate better with advancing age (Jurmain 1991). The presence and severity of surface porosity on all observable superior and inferior articular facets was scored according to the recommendations of Buikstra and Ubelaker (1994).

The results from the limited sample of adults from the Triconch Palace and the Merchant's House suggest that vertebral osteoarthritis was a common pathology (Table 4.7). Surface porosity of the articular facets was most frequent in the thoracic vertebrae and was present in 100% of 10th- to 12th-century adults having observable joint surfaces. Porosity was less common in the cervical vertebrae and least prevalent in the lumbar vertebrae. Skeleton 1236, a young adult female and the only adult dated to the 6th to 7th centuries, showed no evidence of vertebral osteoarthritis. In most cases, individuals with affected articular facets exhibited minimally expressed porosity characterised by pinpoint pores covering less than one third of the joint surface. However, some individuals did show greater degrees of expression. For example,

Table 4.8. Prevalence of enamel hypoplasias in the Triconch Palace skeletons

	Max. Canines			Mand. Canines			Max. Central Incisors		
	N	*n*	%	*N*	*n*	%	*N*	*n*	%
TP 6th–7th c.	1	0	0	1	0	0	1	0	0
TP 10th–12th c.	8	7	87.5	9	6	66.7	5	2	40
MH	1	1	100	2	2	100	2	0	0

N = number of individuals with an observable right or left tooth; *n* = number of individuals affected by hypoplasias.

Skeleton 1518, an older adult male, exhibited more extensive breakdown of the facet surfaces in all areas of the spine along with eburnation, which indicates continued activity subsequent to the degeneration of the articular cartilage.

The small size of the adult sample from Triconch precludes any general statements about sex-based differences in activity levels. However, it is interesting to note that in the 10th- to 12th-century subsample, which includes individuals of both sexes exhibiting joint pathology, only males showed evidence of surface porosity in the lumbar vertebrae. Finally, the results suggest that activity-related biomechanical stress probably began early in life at medieval Butrint. Degenerative pitting was observed on the articular facets of skeletons 1764, 1791, 3023, and 4015 – all of which represented individuals who were estimated to have been less than 35 years of age at death. In fact, Skeleton 4015, a 16- to 20-year-old male placed into the ‘Adolescent’ age cohort, was included in this analysis because minor surface porosity was already apparent in the cervical and thoracic spine.

Enamel hypoplasias

The skeletons from the Triconch Palace and the Merchant’s House were also examined for the presence of enamel hypoplasias. These refer to areas of deficient tooth enamel that may appear as pits, larger patches, or, most often, horizontal lines (Hillson 2008). Enamel hypoplasias have been linked to a number of pathological conditions that fall under the broad categories of genetic anomalies, localised trauma, and physiological stress (Buikstra and Ubelaker 1994; Goodman and Rose 1990). Hypoplastic defects caused by physiological stress are the most likely to appear in ancient skeletal samples. They develop when episodes of stress such as infections or nutritional deficiencies temporarily disrupt normal crown formation. Importantly, because tooth enamel does not remodel once formed, enamel hypoplasias serve as a permanent record of non-specific stresses experienced during the early childhood years.

All available teeth from the Triconch Palace and Merchant’s House skeletons were examined in this analysis. Hypoplasias were recorded by type and position on the tooth using the scoring system recommended by Buikstra and Ubelaker (1994). Prevalence rates were calculated for the permanent maxillary and mandibular canines as well as for the maxillary central incisors, as these teeth are considered to be most susceptible to hypoplasia formation (Goodman and Rose 1990). The results are presented in Table 4.8.

As was the case for vertebral osteoarthritis, small sample sizes make it difficult to draw firm conclusions about childhood stress at Butrint from the dentition. However, among 10th- to 12th-century skeletons, which constitute the greatest number of individuals with observable teeth, hypoplasias were found to be very common. For example, when maxillary canines are considered, enamel defects were observed in 87.5% of individuals from the Triconch Palace. The presence of hypoplastic teeth showed no clear association with age or sex – defects were evenly distributed among adults and subadults and between males and females during this period.

Enamel hypoplasias affecting the deciduous dentition were observed in only one individual: Skeleton 5043, a 1- to 2-year-old infant dated to the 6th century. This is noteworthy, however, because hypoplasias on the teeth affected in this case – the deciduous mandibular canines – reflect physiological stress experienced *in utero* or during the first year of life (Scheuer and Black 2004). In studies of modern populations, the presence of enamel defects in deciduous teeth has been correlated with other issues related to growth and development such as low birth weight and shorter childhood stature (Lukacs *et al*. 2001).

On preliminarily analysis, these data suggest that it was common for young children at Butrint to experience acute episodes of stress severe enough to interrupt normal growth patterns. These physiological disruptions can probably be broadly attributed to infections and/or nutritional deficiencies, perhaps experienced around the time of weaning. As will be demonstrated in the sections that follow, a substantial amount of additional skeletal evidence suggests that those types of health problems were prevalent at Butrint.

Table 4.9. Periosteal reactions in the Triconch Palace skeletons

Skeleton	Date	Sex	Age[a]	Bone(s) affected
1189	10th–12th	Male	30–45	Tibiae and fibulae
1224	10th–12th	-	5–7	Humeri, L. radius, femora, tibiae, and fibulae
1225	10th–12th	-	4–6	L. radius
1226	10th–12th	Male	45–60	R. fibula
1236	6th–7th	Female	23–27	Femora, tibiae, and L. fibula
1241	6th–7th	-	3–9 mos.	R. tibia
1264	10th–12th	-	6–8	R. tibia and unsided fibula shaft
1518	10th–12th	Male	40+	Tibiae and L. fibula
1782	6th–7th	-	6 mos.–1 yr	Tibiae
3126	6th–7th	-	6–9 mos.	R. femur
4015	13th–14th	Male	16–20	Femora
5010	10th–12th	Female	35–45	Humeri, L. radius, femora, tibiae, and fibulae
5189	10th–12th	-	12–15	R. tibia and R. fibula
5319	10th–12th	Female	15–17	R. ulna, R. tibia, and fibulae
5324	10th–12th	-	4–5	Tibiae

[a] All ages are in years unless otherwise indicated.

Periosteal reactions

The skeletons from the Triconch Palace and the Merchant's House frequently exhibit areas of irregular bone formation best described as periosteal reactions. These lesions are created when new bone is laid down in response to physiological insults such as trauma or systemic infection. Like enamel hypoplasias, periosteal reactions are considered non-specific stress indicators. While certain diseases such as treponemal infections may produce recognisable patterns of bone alterations, periosteal reactions usually represent a generalised osteoblastic, or bone-depositing, response in which there is little, if any, association between lesion morphology and the causative agent (Weston 2008). Consequently, interpretations of periosteal reactions are often restricted to using their skeletal distribution to differentiate between trauma-induced lesions (usually localised) and those caused by infection (typically diffuse) (Gladykowska-Rzeczycka 1998).

Table 4.9 lists the skeletons exhibiting periosteal reactions as well as the bones affected in each case. Once again, affected individuals comprise both sexes and all age categories except for the Foetal group. Interestingly, most of the affected individuals come from the 10th- to 12th-century skeletal sample, which may suggest that infections were more widespread in that period than during the 6th to 7th centuries. Larger sample sizes would help clarify whether this apparent pattern indicates a true increase in the prevalence of periosteal reactions over time at Butrint.

The distribution of lesions in the affected skeletons is also of interest. Most individuals exhibit periosteal reactions on multiple bones. Furthermore, the range of bones affected is fairly extensive. For example, the tibia is often cited as the most common element affected by periosteal reactions, perhaps because of its proximity to the surface of the skin (Roberts and Manchester 2005). While the bones of the lower limb – the tibia in particular – were indeed affected frequently in the Triconch skeletons, periosteal reactions were also noted on the bones of the *upper* limb. The diffuse and, in many cases, bilateral expression of lesions in many of these individuals is consistent with systemic infection. For those individuals exhibiting periosteal reactions on isolated bones, it is difficult to determine whether or not the lesions were likely the result of localised trauma. This is because missing skeletal elements of these individuals made it impossible to determine the extent and distribution of the lesions.

Another possible explanation for at least some of the periosteal reactions in the Triconch Palace and Merchant's House skeletons is scurvy (vitamin C deficiency). In this condition, abnormal porous bone formation may occur in response to haemorrhaging of weakened subperiosteal blood vessels. This scenario is more common in vitamin C-deficient children due in part to the demands of growth, but subperiosteal new bone formation and ossified haematomas in the long bones of adults have also been attributed to scurvy (Janssens *et al*. 1993; Maat 2004; Van der Merwe *et al*. 2010). Additional evidence for the presence of this nutritional deficiency at late antique and medieval Butrint is outlined in the following section.

Porotic cranial lesions and scurvy

The skeletons recovered from the Triconch Palace and the Merchant's House were also assessed for the presence of porotic cranial lesions, palaeopathological conditions traditionally interpreted as evidence of anaemia. The lesions appear as small holes that penetrate the outer surface of the cranial vault (often referred to as 'porotic hyperostosis') and the orbital roofs (often referred to as 'cribra orbitalia') and may range in expression from small areas of pinpoint porosity to more extensive involvement characterised by large, coalescing apertures (Stuart-Macadam 1989). The precise relationship between orbital and cranial vault lesions is unclear and the extent to which they share a common aetiology has been challenged by Walker *et al.* (2009).

Abnormal porosity of certain bones of the skull may also be caused by nutritional deficiencies such as scurvy. Scurvy is caused by a prolonged deficiency of vitamin C (ascorbic acid) in the diet. Vitamin C is a necessary component of the diet because humans are unable to synthesise this nutrient (Ortner and Ericksen 1997). Citrus fruits are a well-known and rich source, but vitamin C can also be obtained from other uncooked fruits and vegetables, marine fish (Brickley and Ives 2006), large amounts of potatoes and meat such as kidney and liver (Van der Merwe *et al.* 2010), and dairy products (Mays 2008). Other meats have very little vitamin C and cereals lack this vital nutrient completely (Steinbock 1976). Methods of food preparation also play a role in maintaining an adequate dietary intake of vitamin C because heating and prolonged storage reduce a food's vitamin C content (Mays 2008).

Vitamin C deficiency disrupts collagen production and can lead to impaired osteoid formation and weakened blood vessels. Thus, the onset of scurvy creates a vulnerability to haemorrhage from damaged blood vessels in afflicted individuals (Brickley and Ives 2006; Mays 2008; Ortner and Ericksen 1997; Steinbock 1976; Van der Merwe *et al.* 2010). The inflammatory response to subperiosteal haemorrhaging can lead to bony changes in the form of increased porosity and proliferative bone formation in particular skeletal elements (Ortner and Ericksen 1997). Skeletal manifestations are most evident in subadults and are either relatively minor or show signs of healing in adults (Ortner 2003). This is due in large part to more rapid rates of tissue formation associated with growth and development.

The skeletal elements of the skull that are generally affected by scurvy are those that have close overlying blood vessels that can easily be ruptured by muscle activity. The sites that may show scorbutic lesions include the external surface of the greater wing of the sphenoid and adjacent bones, the hard palate, the internal surface of the mandibular ramus, the cranial vault, the temporal fossa of the frontal bone, and the eye orbits (Brickley and Ives 2006; Ortner 2003; Ortner and Ericksen 1997).

LESION TYPE AND FREQUENCY AT THE TRICONCH PALACE AND THE MERCHANT'S HOUSE

Among 6th- to 7th-century Triconch skeletons with preserved parietal and/or occipital bones (including Skeleton 4044 from the Merchant's House), the prevalence of lesions observed on the external surfaces of the cranial vault is 35.7% (5/14). A greater prevalence rate was found for orbital lesions, which affected 54.5% (6/11) of individuals having at least one preserved eye orbit. The only adult skeleton dated to this period was missing the appropriate cranial bones for this analysis.

The prevalence of ectocranial vault lesions among Triconch skeletons dated to the 10th to 12th century (46.7%; 7/15) is greater than that among the 6th- to 7th-century skeletons. However, the prevalence of orbital lesions declines sharply during the medieval period (30.8%; 4/13). This trend is probably due to the greater proportion of adults, who are less likely to exhibit such lesions.

The smaller sample of individuals buried in the Merchant's House during the 13th to 14th century is characterised by the greatest prevalence rate of vault lesions (57.1%; 4/6). One individual out of three with preserved eye orbits exhibited orbital lesions.

A number of individuals buried at the Triconch Palace during late antiquity and the medieval period also exhibited lesions consistent in location and morphology with scurvy. These lesions consist of abnormal porosity and/or proliferative bone that result from haemorrhage-induced inflammation (Brickley and Ives 2006; Ortner and Ericksen 1997). This pathologic bone usually occurs bilaterally with the primary focus on the greater wing of the sphenoid but can also be present on the cranial vault, orbits, frontal bone, mandibular ramus, hard palate, and maxilla. Some 33 individuals from proper grave contexts at the Triconch Palace were evaluated for the presence of scurvy, of which 30.3% (10/33) showed lesions consistent with this pathology. All affected individuals were juveniles with the exception of one adult male (1189). Cases of scurvy were distributed relatively evenly between phases at the Triconch Palace (Tables 4.10 and 4.11).

Evidence of scurvy was also discovered in Skeleton 4138, a 5- to 7-year-old child from a 13th- to 14th-century Merchant's House burial. This individual exhibits abnormal porosity on the greater wing of the sphenoid, the temporal fossa of the frontal bone, the eye orbits, and the ectocranial surfaces of the occipital and parietal bones. It should also be noted that Skeleton 3129, a 12- to 15-year-old adolescent recovered from a disturbed context in the Merchant's House, displays orbital lesions along with abnormal porosity on a recovered fragment of the sphenoid.

The prevalence rates of porotic cranial lesions among the late antique and medieval human skeletons from Butrint are lower than those reported from some other sites in the Mediterranean. For example, Cucina *et al.* (2006) report a prevalence of 69.2% (18/26) for cribra orbitalia at the Roman suburban community of Vallerano. Nevertheless, the moderate to relatively high frequencies of porotic cranial lesions among the Triconch skeletons suggest that anaemia may have been a significant health problem affecting groups of people living at Butrint throughout the Middle Ages. The picture is complicated, however, by the skeletal evidence of vitamin C deficiency, which includes both orbital and vault lesions. The prevalence of scurvy at Butrint is very high compared to other sites in the region. For example, Bourbou (2003) describes two likely cases out of 51 subadults dated to the 6th to 7th century AD from Eleutherna, Crete. Given the extent and anatomical distribution of lesions among the Triconch skeletons, there is a strong possibility that multiple nutritional deficiencies were occurring together. The potential causes of anaemia and scurvy at Butrint are examined below.

Table 4.10. Porotic lesions among the 6th- to 7th-century Triconch skeletons

Skeleton	Sex	Age[a]	Vault Lesions[b]	Orbital Lesions	Scorbutic Lesions[c]
1236	Female	23–27	-	-	0
1241	-	3–9 mos.	0	✓	0
1267	-	Late foetal	0	-	0
1434	-	4–5	✓	✓	✓
1456	-	Late foetal	0	0	0
1548	-	Late foetal	0	-	0
1782	-	6 mos.–1 year	✓	✓	✓
3122	-	6 mos.–1 year	-	✓	✓
3126	-	6–9 mos.	✓	✓	✓
4044	-	Late foetal	0	0	0
5043	-	1–2	✓	✓	✓
5075	-	Late foetal	0	0	0
5111	-	3–9 mos.	0	0	0
5384	-	2 mos.	0	0	0
5631	-	4–6	✓	-	0
5641	-	Late foetal	0	-	0

[a] All ages are in years unless otherwise indicated.

[b] ✓= present; 0 = absent; hyphen indicates no parietals, occipital, or eye orbits were available for evaluation.

[c] Minimum criterion for the diagnosis of scurvy was abnormal porosity on the greater wing of the sphenoid.

Table 4.11. Porotic lesions among the 10th- to 12th-century Triconch skeletons

Skeleton	Sex	Age[a]	Vault Lesions[b]	Orbital Lesions	Scorbutic Lesions[c]
1181	-	Late foetal	0	0	0
1188	-	11–13	0	✓	0
1189	Male	30–45	✓	-	✓
1224	-	5–7	✓	✓	✓
1225	-	4–6	✓	-	✓
1226	Male	45–60	0	0	0
1229	-	3–6 mos.	-	-	0
1259	-	10–12	-	-	-
1264	-	6–8	-	-	-
1406	-	3–5	✓	✓	✓
1509	-	3–6 mos.	0	0	0
1512	-	6 mos.–1 year	0	0	0
1518	Male	40+	0	0	0
1764	Male	25–35	0	0	0
1791	Female	20–30	✓	0	0
5010	Female	35–45	0	0	0
5189	-	12–15	✓	✓	✓
5319	Female	15–17	✓	0	0
5324	-	4–5	-	-	0

[a] All ages are in years unless otherwise indicated.

[b] ✓= present; 0 = absent; hyphen indicates no parietals, occipital, or eye orbits were available for evaluation.

[c] Minimum criterion for the diagnosis of scurvy was abnormal porosity on the greater wing of the sphenoid.

INTERPRETING POROTIC CRANIAL LESIONS AND SCORBUTIC LESIONS

It has been widely accepted that porous, hypertrophic lesions affecting the cranial vault (porotic hyperostosis) and the eye orbits (cribra orbitalia) are skeletal indicators of anaemia. This relationship was convincingly demonstrated in a series of publications by Stuart-Macadam (1985; 1987a; 1987b) that compared modern clinical cases of anaemia with archaeological skulls exhibiting porotic hyperostosis using radiographic, macroscopic, microscopic, and demographic criteria. Anaemia results when levels of circulating haemoglobin fall below the normal range for a person's age and sex. Symptoms of the condition include fatigue, pallor, headaches, weakness, shortness of breath, vertigo, and increased heart rate (Aufderheide and Rodríguez-Martín 1998; Roberts and Manchester 2005).

While porotic hyperostosis and cribra orbitalia may be used to infer the presence of anaemia, identifying the specific aetiology of anaemia in a skeletal sample is less straightforward (Facchini *et al*. 2004). Genetic

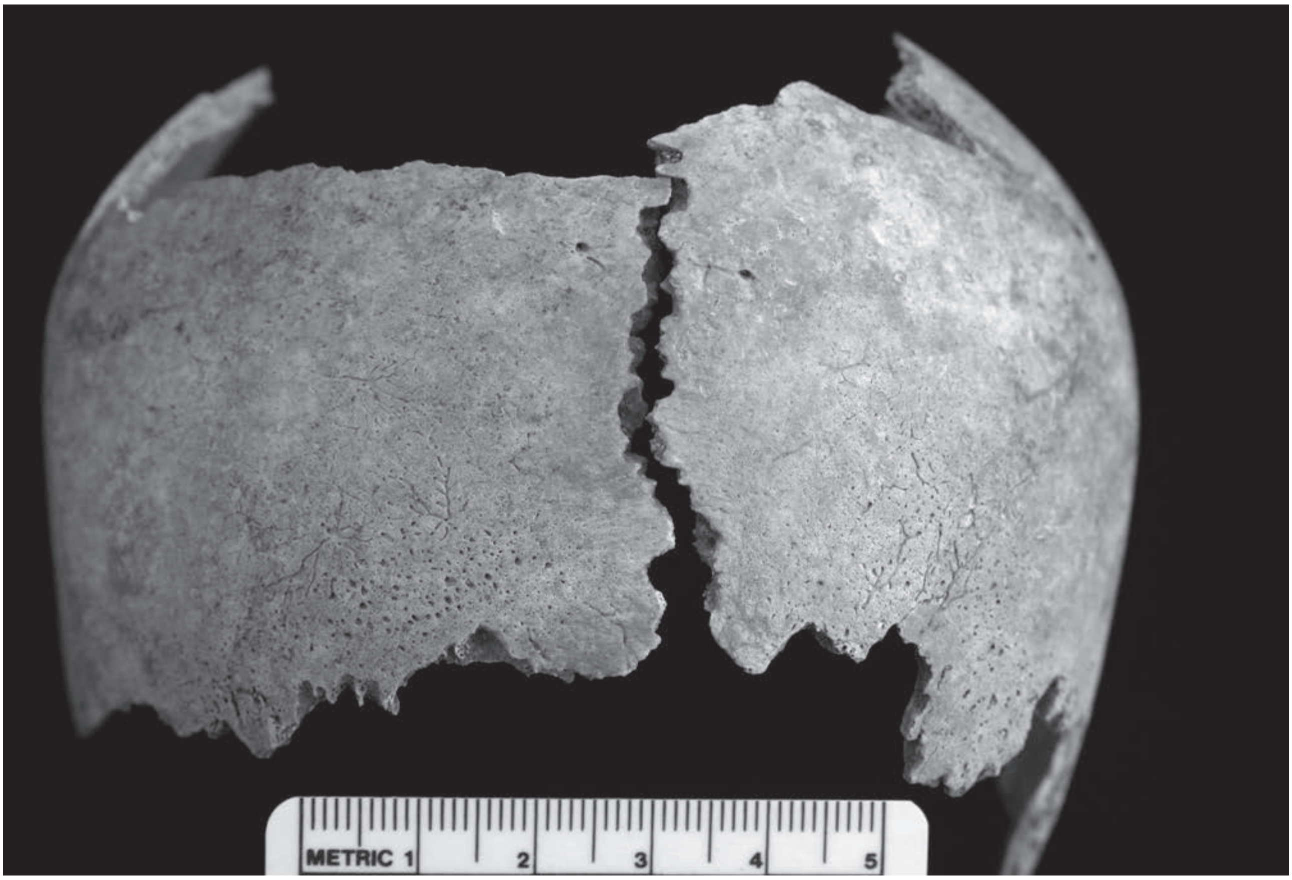

Figure 4.8. Porotic lesions and abnormal vascular impressions on the parietal bones of skeleton 1782

anaemias such as thalassemia and sickle-cell anaemia have been suggested as the cause of porotic hyperostosis, particularly in the Mediterranean where thalassemia currently exists. Angel (1966) argued for this relationship, based on the overlapping distribution of genes for abnormal haemoglobin and falciparum malaria. He pointed out that inherited anaemia is a balanced polymorphism and would have been maintained in certain populations because of the protective advantage it conferred upon heterozygous individuals in malarial environments.

A problem with this interpretation is that porotic hyperostosis and cribra orbitalia also appear among ancient skeletal samples from the New World, where malaria was unlikely to have been present (Walker *et al.* 2009). To explain the presence of these cranial lesions in both the Old World and the New World, the focus shifted to anaemia caused by chronic iron deficiency, a paradigm that has been seriously contested by Walker *et al.* (2009). These authors demonstrate that iron deficiency inhibits rather than produces the type of bone marrow expansion responsible for porotic hyperostosis and cribra orbitalia. Thus, it is recognised that the presence of the lesions in archaeological skeletal samples is indicative of anaemia resulting from a combination of factors including nutritional deficiencies or haemolysis, a heavy parasite and/or pathogen load, and problems related to weaning.

It is also now more widely recognised that complications resulting from severe vitamin C deficiency can produce porous orbital lesions that appear very similar to cribra orbitalia (Ortner *et al.* 1999; Walker *et al.* 2009). As a result, it is likely that scurvy has been under-reported in palaeopathological studies that have focused only on cribra orbitalia and porotic hyperostosis. The difficulty in the differential diagnosis of these pathologies is that bone tissue has only a limited number of ways to react to such conditions. The key to distinguishing scurvy is to investigate the constellation of pathologic bone. A pattern of abnormal porosity and bone proliferation throughout the skeleton is a good indicator of scurvy (Brickley and Ives 2006), since subperiosteal haemorrhaging could occur throughout the body, initiating an inflammatory response. Ortner and Ericksen (1997, 214) state ‘The significant, and in our opinion virtually pathognomonic, feature … is the bilateral, porous lesion of the external surface of the greater wing of the sphenoid and adjacent bone.’ In our evaluation, 80% of the cribra orbitalia cases co-occurred with other scurvy indicators suggesting either that they resulted from vitamin C deficiency rather than anaemia or that the two conditions were commonly occurring together among children at Butrint. In either case, the overall pattern of abnormal porosity and proliferative bone in the skulls of the Triconch children indicate that scurvy was a serious problem in this ancient population (Figs 4.8–4.10).

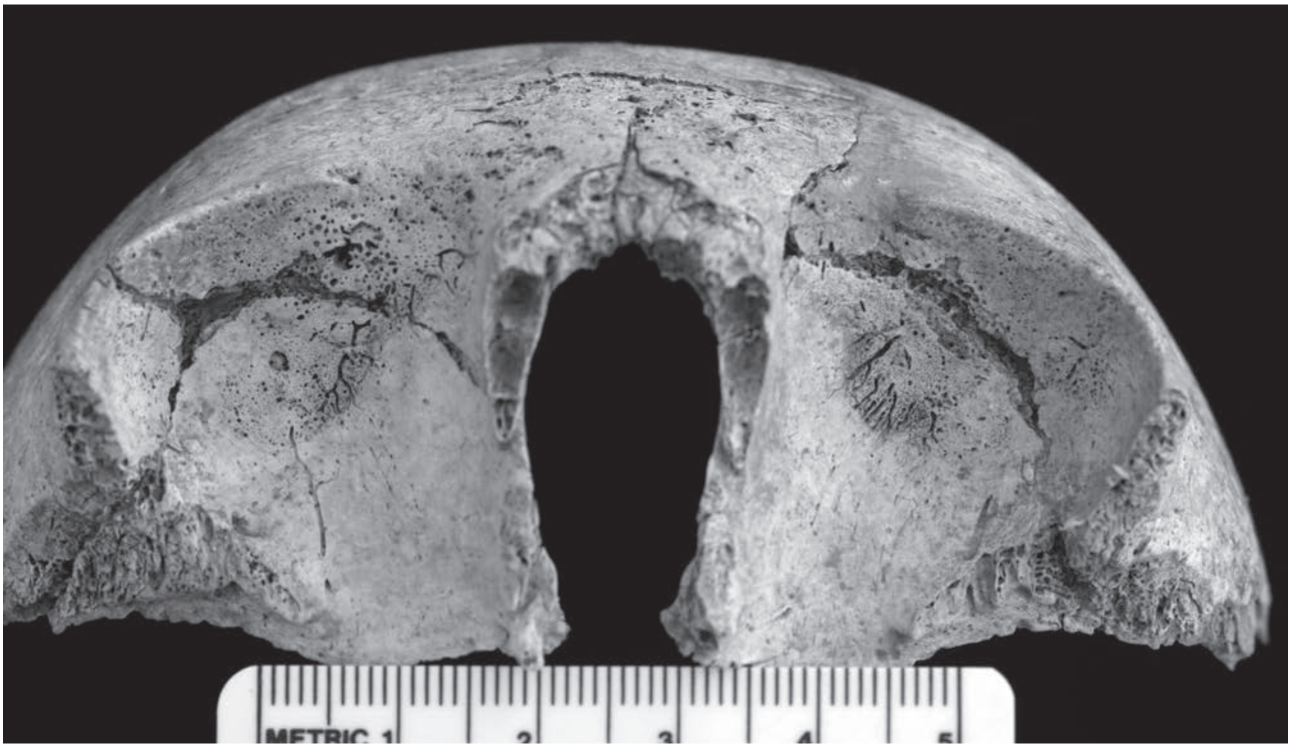

Figure 4.9. Bilateral orbital lesions on skeleton 1782

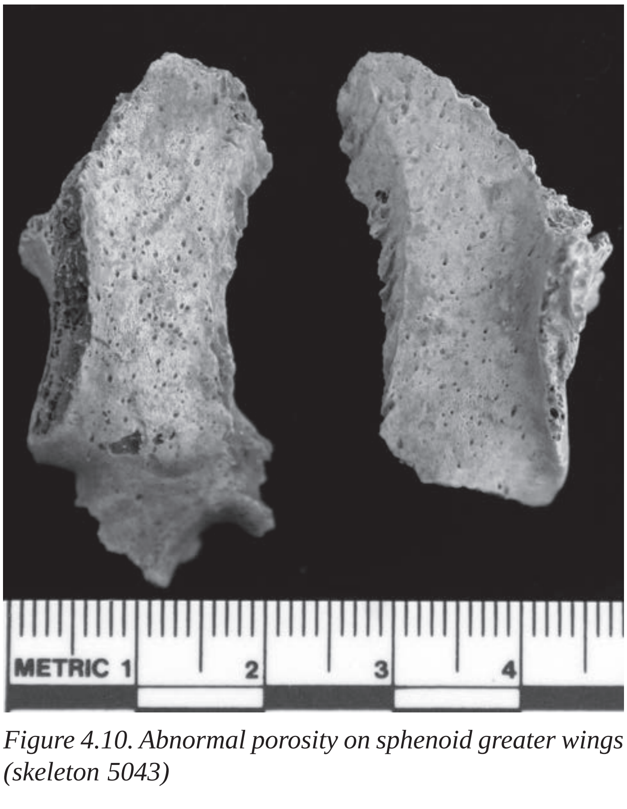

Figure 4.10. Abnormal porosity on sphenoid greater wings (skeleton 5043)

RECONSTRUCTING LIVING CONDITIONS USING THE TRICONCH PALACE SKELETAL SAMPLES

Research by Walker *et al.* (2009) suggests that thalassemia or another hereditary haemolytic anaemia could have been the cause of the porotic cranial lesions observed in the skeletons recovered from the Triconch Palace. With low-lying areas, a high water table, and an abundance of mosquitoes, Butrint certainly possesses ecological conditions favourable to endemic malaria. However, the overall skeletal data is inconsistent with what one would expect if genetic anaemia were present. In addition to producing lesions on the cranial vault, inherited anaemias such as thalassemia are characterised by enlargement of the facial bones, expansion of the medullary cavities and thinning of the cortices of long bones, lesions on scapulae and ribs, and premature fusion of proximal epiphyses (Keenleyside and Panayotova 2006; Lagia *et al.* 2007; Salvadei *et al*. 2001; Tayles 1996). With the exception of a single subadult individual exhibiting cranial and orbital lesions as well as medullary expansion in the femora, that pattern of involvement is absent among the human skeletons from the Triconch Palace. Furthermore, children are affected far more frequently than adults in this sample (only two adults displayed vault lesions and none exhibited orbital lesions), which demonstrates a healing trend that is inconsistent with genetic anaemia.

Nutritional deficiencies that result in scurvy and/or megaloblastic anaemia are a more likely explanation for the presence of porotic cranial lesions in this sample. As previously discussed, scurvy is caused by prolonged vitamin C deficiency, with skeletal lesions more apparent in subadults. In the case of megaloblastic anemia, Walker *et al.* (2009) point out that dietary insufficiency and/or malabsorption of vitamin B_{12}, for example, can result in marrow expansion as a response to inefficient production of short-lived red blood cells. Infants and young children are especially vulnerable to this scenario because, unlike adults, they lack significant stores of vitamin B_{12}. For this reason, megaloblastic anaemia can develop quickly in infants born to and breastfed by mothers who are vitamin B_{12} deficient.

Taking into account Butrint's coastal environment, however, it seems unlikely that communities living at the site would have had difficulty accessing dietary sources of vitamin B_{12}. Animal foods, including marine resources such as fish and shellfish, are good sources of vitamin B_{12} and would have been easily exploited by the population (see Chapter 3 on faunal remains). In the context of an adequate maternal diet, mechanisms contributing to malabsorption must then be considered. While marine resources can also contribute some vitamin C, the best sources for this nutrient are citrus fruits and uncooked green vegetables (Steinbock 1976). The presence of scurvy suggests either that these food types were not available or that they were being prepared in such a way, either through cooking or extended storage, that the vitamin C content was significantly diminished (Mays 2008).

Parasitic infection is a common problem in unsanitary living conditions and a number of parasite species can interfere with the absorption of vitamins and minerals. For example, hookworm is endemic to the Mediterranean and is considered to be a common cause of severe iron-deficiency anaemia in children (Aufderheide and Rodriguez-Martin 1998). With regard to vitamin B_{12}, Walker *et al.* (2009) note that absorption can be inhibited by infection with intestinal parasites such as pinworms and roundworms. Keenleyside and Panayotova (2006) also state that populations depending on marine resources are potentially exposed to fish-borne parasites. Finally, although malaria was discussed above in association with genetic anaemia, it is important to keep in mind that the malaria parasite causes red blood cell destruction and is thus capable of producing anaemia independently of any inherited blood disorder (Stuart-Macadam 1992). In fact, *P. falciparum* malaria is a common cause of severe anaemia among pregnant women and children in developing countries today (Caulfield *et al.* 2004; Nussenblatt and Semba 2002; Ong'echa *et al.* 2006). Malaria infection can also exacerbate pre-existing deficiencies in nutrients such as folate, which may subsequently lead to megaloblastic changes capable of producing porotic cranial lesions secondary to marrow expansion (Allen and Casterline-Sabel 2001; Nussenblatt and Semba 2002; Walker *et al.* 2009).

In an unhygienic and unsanitary environment, the effects of nutritional losses associated with parasitic infection might be compounded by diarrhoeal disease, especially among young children. Walker *et al.* (2009) report that, among other vitamins and minerals, chronic diarrhoea can reduce levels of B vitamins as well as vitamin C. Children of weaning age often experience this problem if they are transitioned to nutrient-poor foods in a highly pathogenic environment where feeding instruments are often unsanitary. Under such circumstances, it must also be assumed that even those infants who were not yet weaned suffered bouts of diarrhoeal disease resulting from infections.

Discussion: living conditions at late antique and medieval Butrint

Many of the human skeletons recovered from the Triconch Palace and the Merchant's House exhibit a pattern of cranial lesions consistent with multiple forms of nutritional deficiency. Persistent nutritional problems in the late antique and medieval communities would also help explain the prevalence of other stress indicators such as enamel hypoplasias and periosteal reactions. However, the authors believe this evidence reflects problems that were not limited to dietary insufficiencies or issues of access to specific types of food resources.

The skeletal data presented here strongly suggest that living conditions at Butrint during late antiquity and the medieval period were quite poor. The changes that affected the late antique city included the failure of the aqueduct, which was at least partially in ruins by the 5th century (Wilson 2013, 95) and probably the decline of other infrastructure such as drainage. Certainly, a significant drain that ran from the 'Gymnasium' area to the Vivari Channel through the Triconch Palace area was blocked by rubbish and rubble during the first half of the 6th century, if not before (Bowden *et al.* 2011d, 95). Equally, it is likely that seismic activity in the 4th century caused the skirt of land around the base of the acropolis to sink, creating an environment that was more subject to flooding and marshy conditions (Bowden *et al.* 2011c, 37). While the health and living conditions of the, as yet unknown, earlier Roman population should not be overstated or romanticised, it is probable that these changing environmental factors contributed to an environment that was unsanitary and highly pathogenic. While such problems undoubtedly affected the entire population, children would have faced the most serious consequences. Depending on the nutritional status of their mothers, children at Butrint may have been at a significant disadvantage while still in the womb. However, even if maternal diets were adequate, children were born into unfavourable conditions in which nutritional losses due to the synergistic effects of parasitic infection (possibly including malaria) and diarrhoeal disease are likely to have occurred rapidly. This scenario would explain the relatively widespread occurrence of scurvy as well as anaemia, probably of megaloblastic origin, at Butrint. It also sheds light on the high levels of subadult mortality evidenced by the skeletal samples from the Triconch Palace and the Merchant's House.

Vertebral lesions

Analysis of the human skeletal material from Butrint identified several individuals displaying signs of infectious

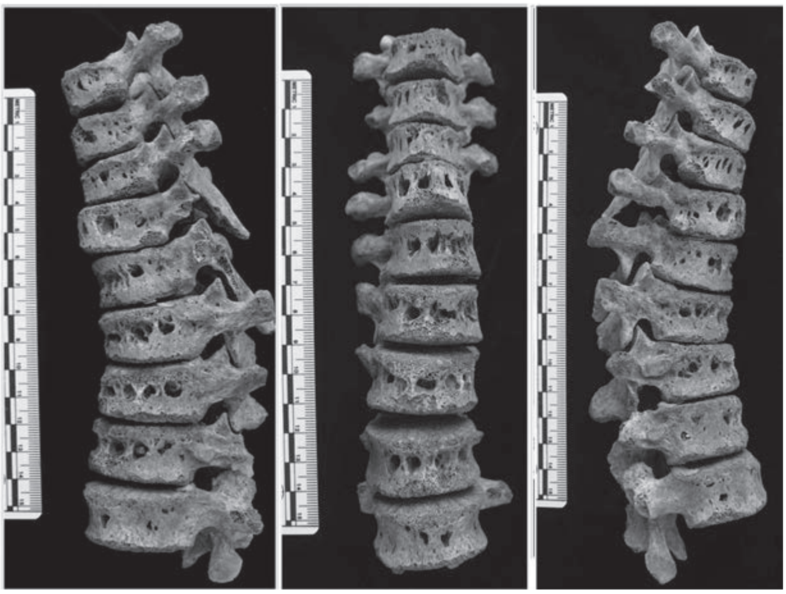

Figure 4.11. Cavitating vertebral lesions of brucellosis (Baptistery skeleton 2272)

disease in the form of lesions on the anterior aspect of thoracic vertebrae. Six skeletons from the Triconch Palace and the Merchant's House (1188, 3018, 3060, 3129, 4015, and 5319) displayed these lesions. Similar lesions were also noted on Skeleton 2272 from the Baptistery, an area separate from the Triconch Palace.[8]

Skeleton 1188 represents a subadult aged 11 to 13 years and exhibits lytic lesions on the anterior surfaces of four mid-thoracic vertebrae. Skeleton 3018 was a 12- to 14-year-old subadult with slight porosity or sub-periosteal new bone formations on the internal aspect of the ribs, abnormal porosity on the superior aspect of the acetabulum, and lytic lesions on the centra of several vertebrae. Skeleton 3060 represents a 13- to 15-year-old with lytic lesions – some measuring 7 × 3.5 mm – in the 11 thoracic vertebrae recovered. Most of the lesions in this individual measured around 2 × 2 mm. The lumbar vertebrae were less affected but lytic lesions were present on several elements of the unfused sacrum, suggesting the possibility of sacroiliac joint involvement. Reactive bone was also present on the postero-inferior aspects of the femoral necks. Skeleton 3129, aged 12 to 15 years, exhibits porosity on the external surface of rib fragments and circular lytic lesions on the anterior aspect of the thoracic vertebral centra. Skeleton 4015 was a 16- to 20-year-old male and exhibits slight porosity and sub-periosteal new bone formations on the internal aspect of the ribs and lytic lesions on thoracic vertebrae 4 through 12. Skeleton 5319 is that of a female aged 15 to 17 with slight porosity on the ribs and possible lytic lesions on several vertebrae and the acetabulum. Finally, Skeleton 2272 (from the Baptistery) represents a 16- to 21-year-old male and exhibits a suite of pathological changes that includes multiple cavitating lesions on the thoracic and lumbar vertebrae (Fig. 4.11), cortical expansion of the ribs, abnormal porosity on the femoral necks, and metaphyseal expansion of the femora and tibiae. All of these individuals display lytic lesions similar to those described by Ortner (2003, 216) in relation to the differential diagnosis of brucellosis. None of the affected vertebrae showed signs of collapse despite the amount of cavitations some contained.

Using osteological methods in conjunction with the analysis of ancient DNA, brucellosis has been confirmed as a cause of the lesions exhibited by some of these medieval skeletons. The methods and results (Mutolo *et al.* 2012) are described in the following section.

ANCIENT DNA EVIDENCE FOR DISEASE

The analysis of skeletal palaeopathologies generated multiple viable hypotheses about the etiology of the vertebral lesions observed in skeletons from the Triconch Palace, the Merchant's House, and the Baptistery at Butrint. However, it is difficult, if not impossible, to determine what particular organism infected the individuals using anthropological analysis alone. For instance, it is difficult to determine if skeletal lesions of the vertebrae were caused by tuberculosis, brucellosis, or another disease and, even further, if the specific tuberculosis organism was *Mycobacterium tuberculosis* or *Mycobacterium bovis*. In recent years, researchers have started to address this problem through DNA-based identification of pathogens, with the belief that the presence of pathogen DNA in bone indicates either acute or chronic infection during an individual's lifetime. In 2001, Mays *et al*. conducted a study on nine human skeletons from the Wharram Percy collection. Gross and radiographic analyses identified circular lesions on the cancellous bone of several vertebrae. The authors believed that the lesions may have been caused by a member of the *Mycobacterium tuberculosis* (MTB) complex, the causative agents of tuberculosis. Skeletal material was collected from within the lesions and the resultant DNA was amplified and screened for the MTB complex. DNA extracted from the bones of seven individuals resulted in positive results, indicating that MTB complex DNA was present, and the authors concluded that the individuals may have suffered from tuberculosis infection during their lifetime. Genetic analysis of ancient DNA has also proved successful in identifying other pathogens including malaria (Sallares and Gomzi 2001), leprosy (Rafi *et al*. 1994), plague (Drancourt and Raoult 2004) and syphilis (von Hunnius 2004).

Based on the success of previous studies, the decision was made to screen pathological skeletal samples from Butrint and Diaporit, the site of a villa located on the southeast shore of Lake Butrint, for pathogen DNA. This analysis was conducted at the Michigan State University Forensic Biology Laboratory. The initial differential diagnosis of the previously mentioned vertebral lesions was tuberculosis (TB). Therefore, methods were developed to screen molecularly for the causative agents of TB. Vertebrae, ribs, and long bone samples were analysed from skeletons showing no pathologies (Diaporit skeletons 10 and 584), skeletons that had pathologies which may or may not have been consistent with tuberculosis (Diaporit skeletons 213 and 319, and Triconch skeleton 5010) and, most importantly, two skeletons (2272 (Bapistery) and 4015 (Merchant’s House)) that showed very similar pathologies consistent with tuberculosis. However, despite repeated attempts, the remains tested negative for the presence of MTB complex DNA. Given the negative results, a concern was that the molecular methods were not sensitive enough to detect pathogen DNA present 1500 years earlier, or that any such DNA had completely degraded over time. Additional experiments showed that the skeletal remains retained analysable human mitochondrial DNA, thus a complete absence of DNA was not an obstacle. Further, the methods developed were successful in detecting *Mycobacterium* DNA from an aged bone sample that had previously tested positive in a study conducted by Ubelaker *et al.* (2000). These results indicated that the individuals tested from the Butrint and Diaporit sites were not experiencing TB infection.

When multiple attempts at *M. tuberculosis* or *M. bovis* DNA identification failed, the question arose as to whether another disease was responsible for the pathologies found in these skeletons. The negative results for tuberculosis led to the decision to screen the Butrint remains for brucellosis, a disease that causes skeletal manifestations similar to TB. In an unprecedented finding, the vertebrae and ribs from skeletons recovered from the Merchant’s House (4015) and the Baptistry (2272) tested positive for DNA of *Brucella* spp., the causative agent of brucellosis, while the other skeletal remains utilised in this study (213, 319, 5010 and both control burials) continued to test negative. At the time of writing, no molecular work has been attempted on skeletons 1188, 3018, 3060, 3129, and 5319. However, the characteristic location and morphology of their lesions strongly suggest that they also suffered from brucellosis. The Butrint remains represent the first published example of ancient skeletal material proving positive for brucellosis, and provide unique insight into the disease processes and life encumbrances affecting this medieval community (Mutolo *et al.* 2012).

THE ETIOLOGY OF BRUCELLOSIS

Brucellosis, also known as Mediterranean fever or undulant fever in humans, is a relatively common zoonotic disease caused by several species of *Brucella* bacteria (Wilkinson 1993). The disease is distributed worldwide but most commonly affects individuals who come into regular contact with infected livestock, those living on farms with livestock, or individuals who ingest unpasteurised milk products (Wallach *et al*. 1998). The organism was first identified in 1887 by David Bruce, a surgeon attached to the Malta garrison (Wilkinson 1993). Due to the work of the British Mediterranean Fever Commission and Themistocles Zammit, the disease was identified in local goats and the troops were instructed to not drink goat’s milk. Within a year, the disease disappeared from British troops stationed on Malta (Wilkinson 1993). Brucellosis infections in sheep and goats are still common in the Mediterranean today despite efforts at control, so it seems logical that *Brucella* organisms were present in sheep, goats, and other livestock during late antiquity and the medieval period (Curate 2006).

Most human infections are the result of *B. melitensis*, the *Brucella* species most common in sheep and goats. Two other *Brucella* species have been known to cause human infection: *B. suis*, common in pigs, and *B. abortus*, typical in cattle, at a lower incidence rate (Acha and Szyfres 1980). Brucellosis infections can be the result of direct or indirect transmission. The former occurs when individuals having close contact with infected goats and sheep are infected via ‘respiratory, conjunctival, and cutaneous routes’ (Wallach *et al.* 1998, 315). The latter refers to infection resulting from the consumption of unpasteurised goat milk or cheese (*ibid*). Clinical research suggests that incubation periods for the disease can differ greatly between individuals (*ibid*).

Incubation following infection may last a week to several months before symptoms begin to develop (Acha and Szyfres 1980). The most common symptom initially is an intermittent or irregular fever accompanied by chills, profuse sweating, and general fatigue (*ibid*). Descriptions of intermittent fevers with similar symptoms have been recorded since the time of Hippocrates (Wilkinson 1993). The *Brucella* organisms localise in lymph nodes, bone marrow, spleen, and liver, causing a granulomatous-type tissue reaction (Acha and Szyfres 1980). Without modern antibiotic treatments, brucellosis may become an acute or chronic infection. Chronic brucellosis is more likely to involve the skeleton (Geyik *et al.* 2002).

The frequency of skeletal involvement is unknown but some clinical studies report incidences of more than 65%. The spine is the most common site of involvement reported in clinical literature, although brucellosis can also affect the sacroiliac joint and cause peripheral arthritis in other major joints. In general, radiographic abnormalities develop late in the course of skeletal brucellosis and are rare in cases of peripheral arthritis. Lack of radiographic information makes it difficult to diagnose peripheral arthritis if it occurs within a skeletal sample such as the skeletons from the Triconch Palace. Peripheral arthritis is generally found in children and young adults while spondylitis is most commonly reported in persons between the fourth and sixth decades of life (Geyik *et al.* 2002).

Initially, brucellosis commences as an intervertebral disk infection leading to contiguous osteomyelitis. The lumbosacral region is involved in 60% of cases, followed by the thoracic region. The cervical spine is only rarely involved. Destruction of vertebral bodies can be quite severe and, especially in *B. melitensis* infections, several regions of the spine may be involved at the same time. Brucellosis can be distinguished from tuberculosis based on several features. Paravertebral abscesses are less common in brucellosis, and tuberculosis infections result in earlier and more destructive changes in bone with no evidence of healing. In brucellosis, following the initially destructive, osteoporotic phase, there is a healing phase marked by sclerosis of involved bone and distinct 'parrot-beak' osteophytes (Glasgow 1976, 286–7).

THE PALAEOPATHOLOGY OF BRUCELLOSIS

Brucellosis is not commonly discussed in the palaeopathology literature, although a few cases have been reported. Prior to the initial publication of the results from Butrint (Mutolo *et al*. 2012), there were no published archaeological examples of confirmed brucellosis. Skeletal criteria have consisted only of a series of generalised manifestations, making exclusive diagnosis difficult if alternative methods such as DNA identification are not performed. Soulie (1982) published a case from a medieval cemetery at Raucourt, France, of an adult woman with sclerosis and lesions throughout much of the thoracic spine. Based on the distribution of various osteo-articular lesions throughout the skeleton, a differential diagnosis of chronic brucellosis was made (*ibid*). The differential diagnosis made in this case has been criticised, as others in the field believe the skeletal changes were caused by a non-specific infection (Etxeberria 1994).

Etxeberria (1994) suggested that brucellosis may only be identifiable at specific stages of involvement and, if the skeleton does not display these signs, then a more cautious differential diagnosis must be made. He discussed three cases that are tentatively accepted as examples of brucellosis. These three individuals all come from the later medieval necropolis of Santa Eulaia (Alava, Spain) and all display an epiphysitis of the anterior and superior rim of vertebrae (in this case all involvement is in the lumbar vertebrae). Granulomatosis reaction and sclerosis is also present. All three individuals are young adults and are believed to represent the early stages of brucellosis skeletal involvement (*ibid*).

Capasso (1999) attributed lesions observed in 16 individuals from Herculaneum to brucellosis. Like the individuals from Santa Eulaia, the affected individuals from Herculaneum display lesions at the antero-superior edge of the vertebral body, although in some individuals the typical sclerotic reaction is not yet visible (*ibid*). It is interesting to note that skeletons from both Herculaneum and Butrint exhibit small 'sub-periosteal neoformations' on the internal surfaces of the ribs (*ibid*, 285). While it is still unclear as to whether or not these rib lesions are directly related to brucellosis, they could potentially offer another tool for differential diagnosis in the absence of genetic testing.

Several individuals from Frankish Corinth have been tentatively diagnosed with chronic brucellosis, based on slightly different criteria. In one specific example, Barnes (2003, 441) attributes to the condition a lesion with a 'chewed-out' appearance located posteriorly on the inferior surface of a thoracic vertebral body.

Due to the difficulty of distinguishing the skeletal manifestations of brucellosis from those of other diseases, it is hard to overstate the significance of the medieval burials from the Merchant's House (4015) and the Baptistry (2272) at Butrint. Having cases of brucellosis confirmed with molecular methods, these skeletons represent a substantial contribution to the literature that will improve the accuracy of identification based on the macroscopic assessment of lesion morphology.

BRUCELLOSIS AT BUTRINT

Capasso (1999) reasoned that brucellosis should be present in Roman populations at moderate levels based on infection through the ingestion of contaminated food products. Some have argued that the prevalence of brucellosis in Mediterranean Roman populations should be fairly low, as they apparently did not drink cow's milk. It has been suggested that this would limit the disease to animal caretakers and butchers as these individuals may have handled raw, infected tissues. However, Romans did drink the milk of sheep and goats, and consumed fresh, unfermented cheeses (*ibid*). This would have provided a suitable vector for *B. melitensis* to infect a larger proportion of the population. Interestingly, carbonised cheese recovered from Herculaneum contained bacteria consistent in morphology and dimensions with *Brucella* (Capasso 2002). Sheep and goats remained important sources of meat and, even more commonly, dairy products during the Byzantine period (Kazhdan 1997; Rautman 2006).

Modern epidemiological studies of the disease have identified additional vectors for infection. Research following an outbreak of brucellosis in rural Argentina found that using goat and sheep manure as fertiliser also provided a vector for infection, as *Brucella* can survive in faeces for seven weeks and in soil for up to ten weeks (Wallach *et al.* 1998). Infection from this type of exposure would likely be the result of the inhalation of contaminated aerosols (*ibid*). Frequency of contact, rather than type of contact, appears to play a major role in the likelihood of a person becoming infected with brucellosis (*ibid*). Given the multiple potential routes of infection, it should not be surprising that brucellosis would be present at low levels, with occasional larger outbreaks, within Roman and Byzantine populations.

It is noteworthy that the individuals from Butrint with confirmed and suspected cases of brucellosis are younger than those typically reported in the palaeopathology literature. Clinical literature indicates that skeletal involvement can occur within this age group, although at lower frequencies. Research of modern brucellosis outbreaks suggests that people with the most frequent contact with infected animals are the most likely to become infected with the disease. In many societies, adolescents act as animal caretakers, shepherds, and field labourers. For example, inscriptions from the Roman period indicate that many children began to work as agricultural labourers and animal caretakers even prior to adolescence (Laes 2004). Daily interactions with infected sheep and goats or the responsibility of collecting manure as fertiliser may have provided ample opportunity for infection to occur. These practices are unlikely to have changed during the Byzantine period. The moderate levels of brucellosis infection among adolescents from medieval Butrint suggest that the affected individuals may have participated in activities involving regular close contact with livestock from an early age. The results may also indicate that the medieval diet at Butrint frequently included contaminated meat or dairy products.

Conclusion: life and death at late antique and medieval Butrint

While the human burials from the Triconch Palace and the Merchant's House may not represent a large and highly organised cemetery, their spatial arrangement and associated skeletal remains nevertheless reveal much about aspects of daily life at late antique and medieval Butrint. Perhaps the most remarkable feature of the skeletal assemblage as a whole is the disproportionate number of infants and young children. Although phasing is ambiguous in some cases, burials at the Triconch Palace during the 6th to 7th centuries were almost exclusively of individuals from those age groups. Even for the 10th to 12th centuries, the proportion of juveniles is much greater among the Triconch burials than at contemporaneous sites in the region. The exception discussed above is Xironomi, where the over-representation of infants and children is likely related to social preferences for the location of children's burials, in addition to stresses associated with poor nutrition and weaning. The palaeopathological data gleaned from the Triconch Palace skeletons strongly suggest a similar situation at Butrint. The prevalence rates of linear enamel hypoplasias, porotic hyperostosis, cribra orbitalia, and scorbutic lesions observed at Butrint, especially among juveniles, are clear evidence of high levels of metabolic stress, the potential causes of which include a heavy pathogen load, poor nutrition, diarrhoeal disease, endemic malaria, or the synergistic effects of more than one of those factors. The addition of endemic brucellosis, confirmed by ancient DNA analysis, indicates that individuals at Butrint regularly came into close contact with infected animals such as sheep and goats and/or consumed contaminated food products.

The patterns of burial within the mortuary space at the Triconch Palace and the Merchant's House also shed light on social organisation and, perhaps, population movement at Butrint during late antiquity and the medieval period. The analysis of mtDNA from bone samples demonstrates that at least three maternal lineages buried multiple individuals within the rooms of the Triconch Palace. Furthermore, familial patterns of burial are indicated in at least two of the three main clusters of burials. The burial cluster located in Room 23, for example, contains a middle-aged adult male, a middle-aged adult female, and a 3- to 6-month-old infant sharing haplotype 2 with the female. Additionally, the only two individuals having haplotype 3 (an adult male and a 4- to 6-year-old child) were buried next to each other in Room 17. Finally, although it cannot be conclusively demonstrated, it is possible that some individuals sharing haplotype 1 were maternally related. Individuals with unique haplotypes most likely represent members of lineages that were either new to the area or simply passing through. The fact that two thirds of these burials belong to the late antique period could support the suggestion that the Triconch area saw a less stable and more transient population during late antiquity.

Assessments of palaeodemography, mortuary behaviour, and palaeopathology together allow living conditions at Butrint during late antiquity and the medieval period to be reconstructed. Based on the samples of human skeletons recovered from the Triconch Palace, the transformation of the city during late antiquity was probably not a positive development for the health and well-being of its occupants. While the recovery and examination of skeletal remains from earlier periods would be necessary to confirm this assertion, it is not difficult to envision how the changes documented archaeologically at Butrint could have contributed to the poor skeletal health of the present collection. The most obvious example is the decline of drainage systems that, when combined with a rising water table, would have created sanitation problems as well as expanding areas favourable to the development of mosquitoes potentially carrying the malaria parasite. The frequent inclusion of isolated burials with distinctive mtDNA haplotypes may also corroborate the palaeopathological and archaeological evidence suggestive of environmental problems at late antique and medieval Butrint. It is difficult to conclude with certainty whether or not such burials reflect transient outsiders or whether it was simply uncommon for a family to spend much time in somewhat less than hospitable conditions. In either case, the human skeletons from the Triconch Palace and the Merchant's House provide a unique glimpse of what was likely to have been a small group of families along with other temporary members of the community living in difficult circumstances during late antiquity and the Middle Ages.

Notes

1 See Bowden and Hodges 2011a, chapters 3–4 for discussions of the archaeology of the Triconch burials. Two individuals (1764 and 5319) probably date to the 13th to 14th century but are grouped with the 10th- to 12th-century sample for the purposes of this analysis. Given the uncertain stratigraphy associated with some of these burials, with the exception of 1764 and 5319 (Phase 14), they were placed in Phase 12 (primarily the 10th century) although the AMS dates certainly indicated that some were later (Bowden *et al*. 2011b, 119–32).

2 Skeletons were selected for AMS radiocarbon dating when their position in the archaeological sequence was particularly significant or problematic. Resources did not permit AMS dating of all recovered skeletons.

3 See Bowden and Hodges 2011a, chapters 5–6 for discussions of the archaeology of the Merchant's House burials.

4 See Appendix 4.1 for postcranial measurements of the Triconch Palace and Merchant's House skeletons.

5 The age classes used by Rife (2012) and Salvadei *et al*. (2001) differ from those of Buikstra and Ubelaker (1994) with regard to the subadult/adult cutoff. Rife considers individuals to have attained adult status at 15 years of age, while Salvadei and colleagues use the age of 18. The distinctions between the age categories used by these authors and those used in the present research do not significantly affect the comparability of the proportions of adults and subadults in the respective skeletal samples.

6 Skeletons 1211 (a late foetus or infant from context 1233) and 1756 (a late foetus or infant) from grave 1758 could not be examined as part of the analyses undertaken for this chapter.

7 Two skeletons among those individuals sharing haplotypes 2 and 3 were AMS radiocarbon-dated. Skeleton 1225 (haplotype 3) produced a calibrated date of AD 880–1020. Skeleton 5010 (haplotype 2) probably dates to slightly later, having produced a range of AD 980–1150.

8 Four contexts containing human remains from the Baptistery were available for analysis: 2250, 2268, 2272 and 2288. See Appendix 4.2 and Bowden and Përzhita 2004, 193–4.

5 Metalworking at the Triconch Palace and the analysis of slags and waste

Patrice de Rijk

Introduction

The presence of small-scale industrial activity was a key aspect of occupation in the Triconch area, particularly during the 6th century (Phases 8 and 9) when the south wing of the former *domus* saw the construction of numerous small furnaces (Bowden *et al* 2011d, 88–91, 96–105).

Slag and slag-like material was recovered in low quantities from a range of archaeological features at the Triconch Palace. Some 39 pieces, weighing 365 g in total, were examined, together with a large quantity of very small slag pieces (recovered from bulk soil samples) weighing 177 g. Due to the small sample of metalworking finds, which derived from a wide variety of context types, locations and dates, it has not been possible to provide a worthwhile chronological analysis of smithing in terms of raw materials, finished products or specific working areas. Instead, this report takes the opportunity to discuss the basic technology and characteristics of ancient processes of metal smithing and to relate these to the Butrint finds. The metalworking finds are presented with location, context and phase information in Tables 5.1–5.3.

Residues from at least three different kinds of heat-related activities were identified. These are heating and smithing of iron, melting and casting of copper alloy, and a third activity involving high temperatures in a furnace, or similar, producing silica-rich slag (Table 5.1).

Table 5.1. Slag and slag-like material by category

Group	Type	No.	Weight (g)
Iron	Smithing hearth bottom	3	71
	Hammerscale	++	168
Copper alloy	Crucible	1	6
	Hammerscale	1	0
	Slag	4	23
Silica-rich	Slag	11	192
Other		5	82

Iron working

Pieces of iron-working debris were examined from 13 separate contexts. These spanned a disparate range of features and deposits dated across Phases 1–15 (Figs 5.1, 5.2). Whilst to generalise may be misleading, iron-working finds from the Triconch Palace were broadly restricted to the west and south ranges and to the buildings (in particular the long gallery (18), reception room (24) and bath-house (36)), on the south-west side of the *domus*. Again, in general terms, there was a bias in the finds from these locations to contexts of *c*. 6th-century date (Phases 8–10). Iron-working debris was also recovered from the west wing and the open area of the Merchant's House, although from only three contexts dated to Phase 1–2e and Phase 13b.

Iron smithing was carried out in two stages. First iron was heated in a hearth and then it was worked on an anvil. Residues from both of these processes were found. The first process may produce so-called smithing hearth bottoms (SHBs). This type of slag is a product of the reaction between iron oxide (from the iron object that is being heated), fuel ash and the lining of the hearth. Additionally, inclusions of slag in the iron, the flux (welding sand) and other objects that are not specific to smithing – such as animal bone – might contribute to the SHB. Contrary to the name, an SHB does not form at the base of the hearth, but rather within the fuel. Until the 13th century, smithing fuel was generally charcoal (Bartels 2000, 17). To attain sufficient heat in a hearth, air would be directed from above by bellows towards its centre. With charcoal, heat radiates evenly in all directions, thereby creating a spherical area with high temperatures surrounded by cooler peripheries. The slag forms in the hottest part of the hearth and solidifies in the transitional area of the cooler extremities. The classic SHB is planoconvex – hemispherical with a flat top. Sometimes, elements of clay from the hearth lining might stick to the side or, occasionally, the base of the slag. Other characteristics of SHB are glassy spots at the top and side of the slag, imprints and inclusions of charcoal, and a slight magnetic attraction.

Three slag pieces from the Triconch Palace might be

Table 5.2. Metalworking samples by type

Context	Area	Phase	Context type	Sub	n	G	Type	Remarks
Iron working - SHB								
1392	24	8–9	Demolition debris	1	1	37.2	SHb	
5629	16	5–6	Mortar and clay layer	1	1	28.7	SHb	Mica (Biotite) on Surface, SHb?
5647	29	1	Build-up layer	1	1	4.8	SHb	
Iron working - Hs								
1531	24	8	Pit fill	1	1	0.1	Hs	
1546	24	10	Fill of amphora burial	1	1	0.1	Hs	
1560	25	13–15	Fill of stone structure	1	1	0.1	Hs	
1562	24	8	Kiln fill	1		6.1	Hs	Hs?, Iron stone? mostly Residue
1973	36	5	Charcoal-rich layer	1	3	0.1	Hs	
3249	39	13b	Kiln superstructure	1	1	0.1	Hs	
4073	40	13b	Post-hole fill	1		66.0	Hs	concreted Hs
4073	40	13b	Post-hole fill	2		86.8	Hs	Ag, Slag, Spheroid
4073	40	13b	Post-hole fill	3		4.6	Hs	thin
4073	40	13b	Post-hole fill	4		2.7	Hs	
4175	39	1–2e	Construction cut fill	1	1	0.1	Hs	
4175	39	1–2e	Construction cut fill	2	1	0.1	Hs	Hs?
5072	18	10	Grave fill	1	1	0.1	Hs	Hs?
5089	18	9	Kiln fill	1	5	0.7	Hs	
Copper alloy								
3370	39	14–15	Late surface	1	1	11.5	SHb	Cu
4051	39	8	Silting	1	1	6.1	Rest	Crucible with Cu
4073	40	13b	Post-hole fill	5	1	0.1	Hs	Cu
5356	16	9	Silting	1	1	7.3	Slag	Cu, reacted with Clay?
5356	16	9	Silting	2	2	4.6	Rest	Cu drops
Slag								
1899	16	13–14	Rubble layer	1	1	6.0	Slag	sintered Clay
2051	39	15	Topsoil	1	1	1.4	Slag	sintered Clay,Crucible?
3042	16	4	Make-up level	1	1	3.5	Slag	sintered Clay
3042	16	4	Make-up level	2	1	13.6	Slag	sintered Clay
5058	18	8	Flood deposit?	1	1	4.6	Slag	sintered Clay, Mica, Mortar
5298	21	7	Rubble layer	1	1	85.3	Slag	Mortar, PFl?
5303	CWT		Mortar layer	1	1	0.4	Slag	sintered Clay
5319	27	14	Grave fill	1	1	0.1	Slag	sintered Clay, SSb?
5322	16	12–13	Courtyard deposition	1	1	6.2	Slag	sintered Clay, Mortar attached?
5362	16	9	Abandonment deposit	1	1	8.4	Slag	sintered Clay
5629	16	5–6	Mortar and clay layer	2	1	62.8	Slag	Mortar, PFl?
Rest								
3066	43	14–15	Cultivation soil	1	1	42.9	Rest	Cement?
3127	45	14–15	Deposit inside tower	1	1	2.9	Rest	Pottery (Base)
3127	45	14–15	Deposit inside tower	2	1	18.6	Rest	Pottery (slightly sintered)
5267	21	9	Kiln fill	1	1	6.2	Rest	burnt Clay, Mortar attached?
5277	21	9	Kiln fill	1		3.5	Rest	Iron stone?
5277	21	9	Kiln fill	2		7.4	Rest	Iron stone?
5376	29	8	Fill of amphora burial	1	1	0.1	Rest	Fe, Shoe Nail?

Table 5.3. Metalworking samples arranged by area

Context	Area	Phase	Context type	Sub	n	G	Type	Remarks
5629	16	5–6	Mortar and clay layer	1	1	28.7	SHb	Mica (Biotite) on Surface, SHb?
1899	16	13–14	Rubble layer	1	1	6.0	Slag	sintered Clay
3042	16	4	Make-up level	1	1	3.5	Slag	sintered Clay
3042	16	4	Make-up level	2	1	13.6	Slag	sintered Clay
5322	16	12–13	Courtyard deposition	1	1	6.2	Slag	sintered Clay, Mortar attached?
5356	16	9	Silting	1	1	7.3	Slag	Cu, reacted with Clay?
5356	16	9	Silting	2	2	4.6	Rest	Cu drops
5362	16	9	Abandonment deposit	1	1	8.4	Slag	sintered Clay
5629	16	5–6	Mortar and clay layer	2	1	62.8	Slag	Mortar, PFl?
5072	18	10	Grave fill	1	1	0.1	Hs	Hs?
5089	18	9	Kiln (5088) fill	1	5	0.7	Hs	
5058	18	8	Flood deposit?	1	1	4.6	Slag	sintered Clay, Mica, Mortar
5298	21	7	Rubble layer	1	1	85.3	Slag	Mortar, PFl?
5267	21	9	Kiln fill	1	1	6.2	Rest	burnt Clay, Mortar attached?
5277	21	9	Kiln fill	1		3.5	Rest	Iron stone?
5277	21	9	Kiln fill	2		7.4	Rest	Iron stone?
1392	24	8–9	Demolition debris	1	1	37.2	SHb	
1531	24	8	Pit fill	1	1	0.1	Hs	
1546	24	10	Fill of amphora burial	1	1	0.1	Hs	
1562	24	8	Kiln fill	1		6.1	Hs	Hs?, Iron stone? mostly Residue
1560	25	13–15	Fill of stone structure	1	1	0.1	Hs	
5319	27	14	Grave fill	1	1	0.1	Slag	sintered Clay, SSb?
5647	29	1	Build-up layer	1	1	4.8	SHb	
5376	29	8	Fill of amphora burial	1	1	0.1	Rest	Fe, Shoe Nail?
1973	36	5	Charcoal-rich layer	1	3	0.1	Hs	
3249	39	13b	Kiln superstructure	1	1	0.1	Hs	
4175	39	1–2e	Construction cut fill	1	1	0.1	Hs	
4175	39	1–2e	Construction cut fill	2	1	0.1	Hs	Hs?
3370	39	14–15	Late surface	1	1	11.5	SHb	Cu
4051	39	8	Silting	1	1	6.1	Rest	Crucible with Cu
2051	39	15	Topsoil	1	1	1.4	Slag	sintered Clay, Crucible?
4073	40	13b	Post-hole fill	1		66.0	Hs	concreted Hs
4073	40	13b	Post-hole fill	2		86.8	Hs	Ag, Slag, Spheroid
4073	40	13b	Post-hole fill	3		4.6	Hs	thin
4073	40	13b	Post-hole fill	4		2.7	Hs	
4073	40	13b	Post-hole fill	5	1	0.1	Hs	Cu
3066	43	14–15	Cultivation soil	1	1	42.9	Rest	Cement?
3127	45	14–15	Deposit inside tower	1	1	2.9	Rest	Pottery (Base)
3127	45	14–15	Deposit inside tower	2	1	18.6	Rest	Pottery (slightly sintered)
5303	CWT		Mortar layer	1	1	0.4	Slag	sintered Clay

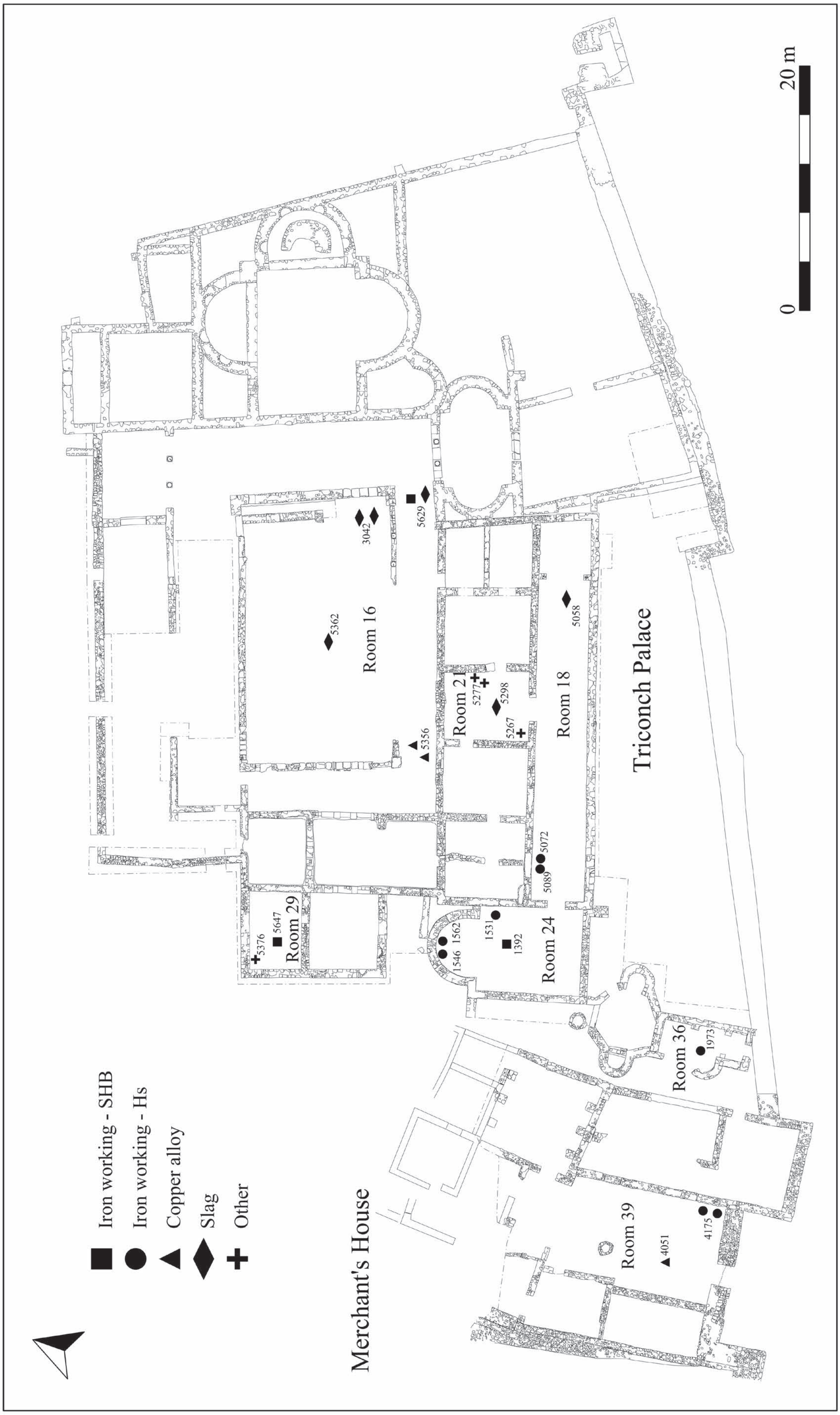
■ Iron working - SHB
● Iron working - Hs
▲ Copper alloy
◆ Slag
✚ Other
Merchant's House
Triconch Palace
Room 16
Room 18
Room 21
Room 24
Room 29
Room 36
Room 39
0
20 m
3042
5629
5362
5356
5277
5298
5267
5058
5072
5089
1531
1392
1562
1546
5376
5647
1973
4175
4051

Figure 5.1. Locations of metalworking evidence in the late antique period

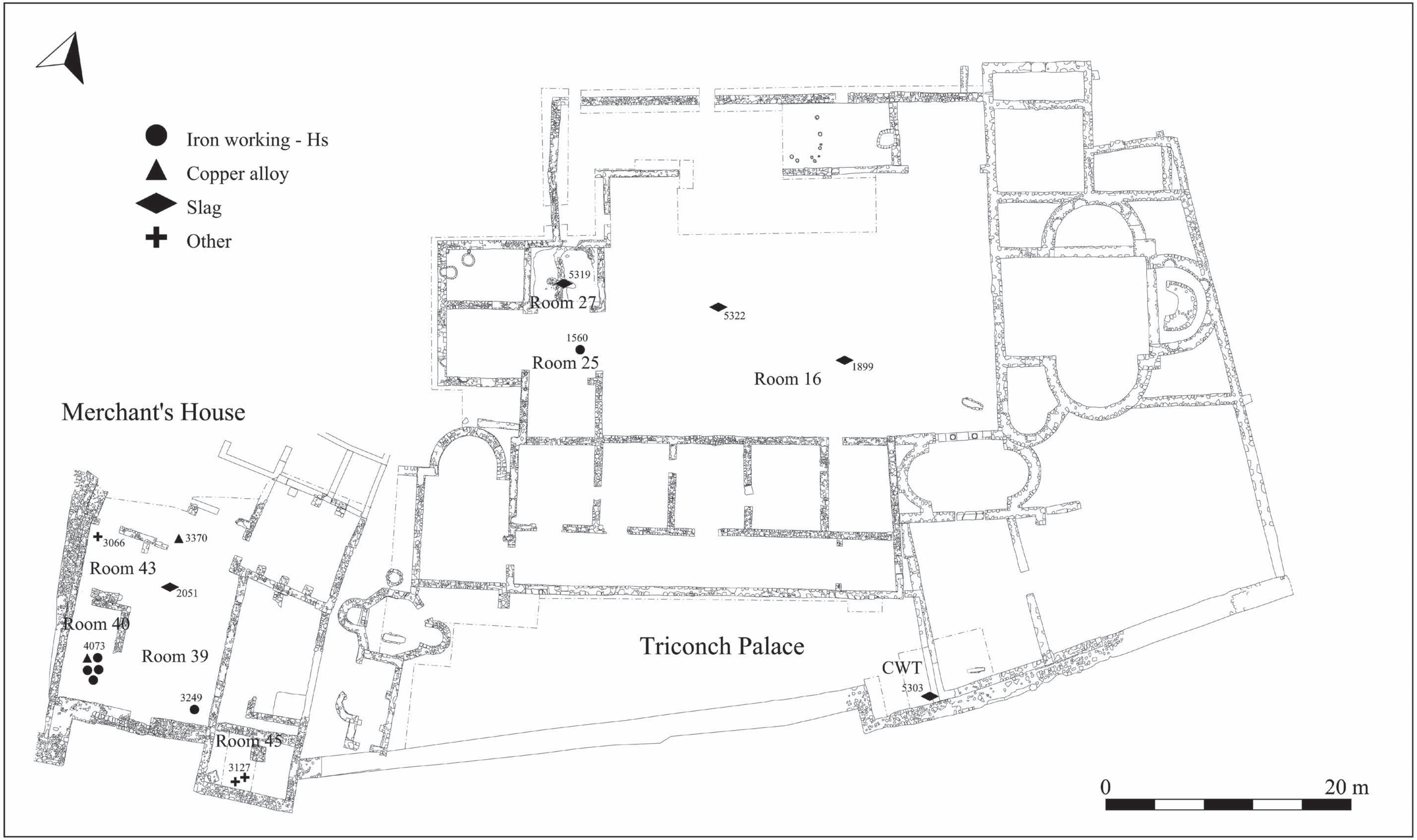
● Iron working - Hs
▲ Copper alloy
◆ Slag
+ Other
Merchant's House
Room 43
Room 40
Room 39
Room 45
3066
3370
2051
4073
3249
3127
Room 27
Room 25
Room 16
5319
1560
5322
1899
Triconch Palace
CWT
5303
0
20 m

Figure 5.2. Locations of metalworking evidence in the medieval period

SHB-fragments, although their small size makes definitive classification difficult. They are unrelated either spatially or temporally, coming from Room 29 (5647, Phase 1), Room 16 (5629, Phase 5–6) and Room 24 (1392, Phase 8 or 9). Two pieces bear charcoal imprints and are in parts slightly magnetic. The third piece may have solidified within a charcoal bed. Their density ranges between 2.8 and 3.1 g/cm^3. These are common values for SHB, whereas production slag is typically heavier (de Rijk 2007, 138).

The second process, working iron on the anvil, produces hammerscale. Hammerscale is broadly differentiated into scales and spheres. Scales are the oxidised surface of an iron object that has flaked-off (especially when struck by a hammer) due to its brittleness and the different expansion rates between iron core and iron oxide. Such scales are very small and characteristically measure less than 10 mm in diameter. Their shape, size and thickness depend upon the temperature of the hearth and the quality of the iron. The higher the temperature, the thicker the oxidised zone will be and so too the scale. Moreover, the dirtier the iron, *i.e.* the more slag that is included in it, the less likely it is that scales will be formed and irregularly shaped slag is set free instead. Spheres, on the other hand, are formed whilst welding two pieces of iron together. Depending upon the quality of the iron, a flux may be necessary to assist the weld. Iron oxide, formed as iron is heated in the hearth, has a high melting point (upwards of 1420 °C), and prevents a secure weld. As the oxidised surfaces of the two iron pieces are pressed together, the oxide cannot flake-off as normal. Instead, the iron oxide must be made fluid, so that it can be squeezed out. This is achieved by spreading a silica-rich flux over the iron. The flux reacts with the iron oxide, forming a thin layer of slag that can be pressed out of the joint and which solidifies in air. However, if dirty iron is used, the slag inclusions in the iron take over the role of the flux. Unlike the flakes, for the most part they are not magnetic (Unglik 1991, 94).

In the Triconch Palace assemblage, hammerscale was present in the form of both scales and spheres and also irregular shapes. All of the iron hammerscale was retrieved from bulk soil samples. The earliest-dated (Phase 1–2e) feature to produce hammerscale was the construction cut (4175) for the east wing (Room 38) of the Merchant's House. A sample of a 5th-century (Phase 5) charcoal layer (1973) from the Triconch Palace bath-house (Room 36) also produced tiny quantities of hammerscale. A more coherent group of samples encompassed a number of broadly 6th-century (Phases 8–10) feature fills (1531, 1546, 1562) in the apsidal hall (Room 24), and kiln- (5089) and grave-fill (5072) deposits from the south wing (Room 18). The fill of a 12th- to early 13th-century (Phase 13b) post-hole (4073) in the Merchant's House (Room 40) produced large quantities of concreted hammerscale along with evidence of silver smithing and other slag. Hammerscale was also found in the demolition deposits (4175) of an oven of the same date in the open area (Room 39) and the fill (1560) of a Phase 13–15 stone structure in the west range (Room 25) of the Triconch Palace.

The scales are magnetic and they possess a metallic lustre or are otherwise dull-grey. Their thickness ranges from 0.3 to 1.5 mm, and whilst the thickest examples typically display a vesicular base, the thinner ones are smooth. The spheres and irregular pieces exhibit roughly the same properties as the scales, that is, they are grey and magnetic. The spheres measure 1–2 mm in diameter. Close examination of the irregular pieces revealed that they actually consisted of hammerscale scales, bound together by soil. The large number and size of the scales point to shaping and welding of relatively clean iron, such as bar- or scrap-iron (de Rijk 2007, 117). To gain a better understanding of the nature of the hammerscale, two scales and one irregularly shaped hammerscale conglomerate were prepared for reflected light microscopy (4051, 4073).

The polished samples of the scales showed grey and light grey with a brownish tint in reflected light. They point to the iron oxides wüstite (FeO) and magnetite (Fe_3O_4). The first sample consisted mainly of wüstite and contained *c*. 30% vesicles and a few narrow, polygonal-shaped fissures filled with glassy dispersion. The second scale was also made up of wüstite, but contained *c*. 40% poorly sorted and poorly distributed vesicles. Slag inclusions in the iron formed a distinct inter-granular network of glass-filled fissures. Magnetite was present as dendrites within the wüstite and along the rim of the scale. Droplets of metallic copper (alloy) were present within both the glass and the magnetite. This is a highly unusual find in hammerscale (Fig. 5.3).

The copper drops are small and almost circular, similar to drops fallen into a smelt, although such a scenario seems unlikely in this case as the surface of the iron object did not melt, but rather oxidised. Besides, if the surface had melted, and then solidified again, fayalite crystals (Fe_2SiO_4) should have been present and the wüstite would not have grown as large, as a high cooling rate can be assumed at the smithing stage. The copper may be associated with welding. The master craftsman Vannoccio Biringuccio (1480–1539?), for example, mentions in his *De la pirotechnia*: 'the welding that is done not only with the iron itself but also by boiling that which is being made with fine copper' (Smith and Gnudi 1990, 371). To prepare the iron for welding, a copper-rich flux, such as crushed copper slag or a crushed crucible with melted copper alloy attached to it, may have been spread over the iron. Slag would then form and penetrate the oxidised iron crust, resulting in metallic prills in hammerscale. The kind of flux used at Butrint, however, remains unclear.

The hammerscale conglomerate (from post-hole deposit 4073) also revealed some unusual features. Composed of hammerscale and charcoal embedded in a matrix of sand, the iron oxide hematite (Fe_2O_3) and an amorphous mass, possibly fayalite, were recorded along with a small scale of copper oxide. A large mass of iron oxide with no distinct phases between wüstite, magnetite and hematite was visible in the middle of the conglomerate. This had large parallel

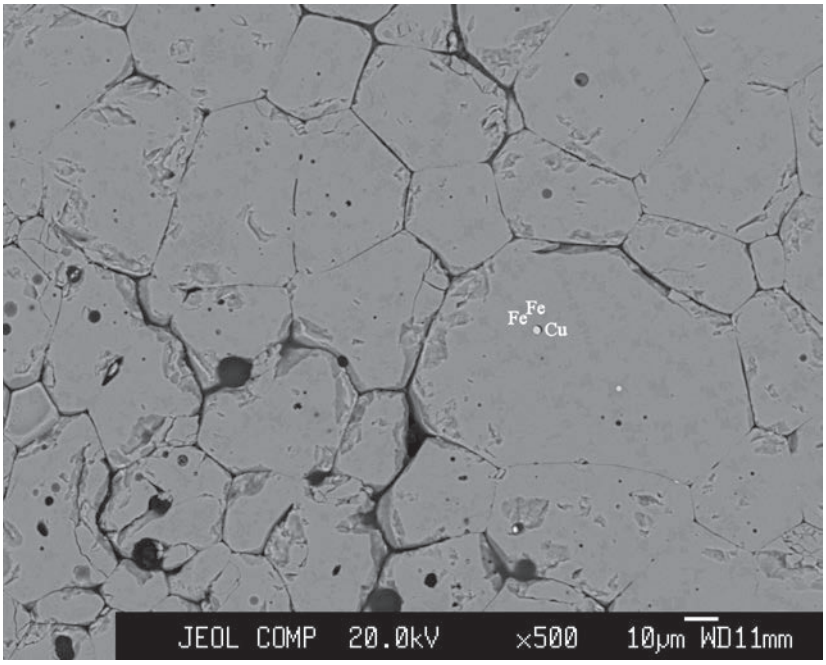

Figure 5.3. Microscopic analysis of hammerscale containing copper droplets

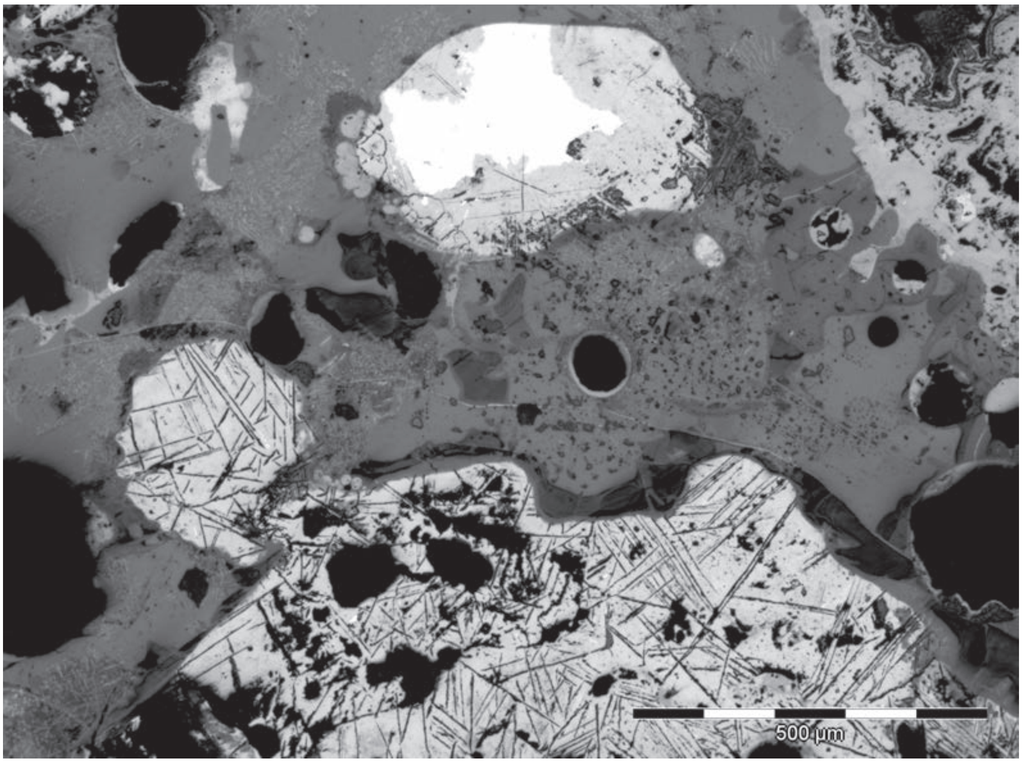

Figure 5.4. Microscopic analysis of hammerscale conglomerate from post-hole deposit 4073

needles (dark grey and consisting partly of metallic iron) all over its surface, running in three main directions and forming a triangular pattern. These are probably iron carbide needles (cementite), indicating that the smiths in Butrint worked high-carbon steel (Fig. 5.4).

Copper alloy working

Remains of copper alloy working were sparse, and only one of the contexts (5356) was analysed from the Triconch Palace (peristyle courtyard (16), Phase 9). In the Merchant's House, pieces were recovered from two separate contexts (4051, Phase 8 and 3370, Phase 14–15) in the central

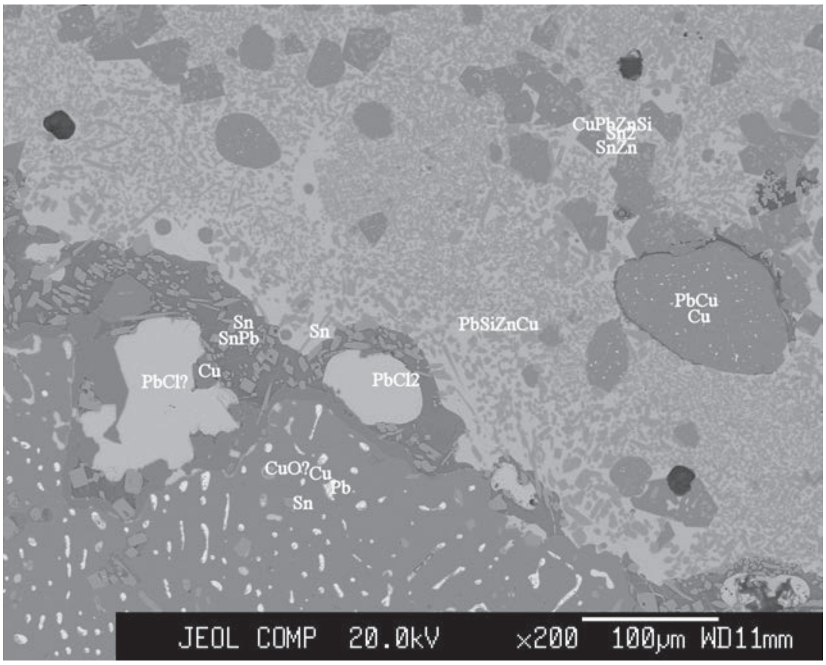

Figure 5.5. Microscopic analysis of copper crucible content

area (Room 39), and from the same Room 40 post-hole (4073, Phase 13b) that produced the large amount of iron hammerscale noted above (see Table 5.2 for catalogue of pieces).

Copper alloy was usually melted in a crucible and cast in a mould. Thereafter, the casting was worked to remove the mould-joints and to smooth its surface. Remains from these processes were evident in the Triconch Palace metalworking debris as copper alloy slag attached to a crucible fragment, and slag that had dropped into the hearth in which the crucible was heated. All of the slag had a distinct green patina, which immediately identified it as waste from copper alloy casting. The slag is the result of the reaction between copper and any remaining iron oxides in the melt or components of the crucible that consist mainly of silica (Tylecote 1979, 19). In addition, a small scale fragment (2 × 3 mm) with a sea-green colouration was found between the hammerscales from iron working (4073), showing that the copper alloy casts underwent a mechanical work step too.

The crucible fragment (4051) attached to the slag was small, but still revealed certain distinct characteristics. Its base was flat and circular in plan and its sides splayed outward at an angle of *c*. 56°. The diameter of the crucible was more difficult to estimate; it may have measured 40–60 mm at its base. Large, flat-based crucibles came into use during the Middle Ages (Bayley 1988, 201), although these crucibles possessed considerably thicker walls than the one found at the Triconch Palace. The base of the Butrint crucible measured just 1.7 mm thick, which was certainly not strong enough to hold significant quantities of copper alloy. It must therefore be assumed that the crucible diameter did not exceed 40 mm, as thin-walled crucibles of similar size are known from the early medieval period (Bayley 1988, 200). The fabric of the crucible consisted of fine-grained quartz, and with the exception of one area of the base, the entire exterior of the crucible fragment was covered with green patches and red glass from spilled copper alloy and the reaction between the clay of the crucible and fuel ash.

The content of the crucible was analysed microscopically. It showed a matrix of fused quartz and dispersed glass with different-sized prills and irregular blobs of copper alloy embedded in it (Fig. 5.5). Most of the larger metallic patches showed labyrinth structures, possibly as a result of the silicate-rich smelt that penetrated the metal along the grain boundaries and trapped gasses in the metal escaping. Part of the smelt showed dendritic growth of cuprite (Cu_2O), indicating that the temperature of the smelt reached *c*. 1235 °C, substantially above the melting temperature of copper (1054 °C) and tin-bronze (*c*. 990 °C).

Two of the pieces of copper alloy spill from melt or casting (5356) were irregular drop-shaped examples, measuring 16 × 13 × 8 mm and 16 × 10 × 8 mm. A third piece (5356) consisted of slag that had flowed over heat-cracked quartz while a fourth piece (3370) showed clear imprints of charcoal, indicating that it solidified in a hearth. These four pieces are probably the result of copper alloy spilled during casting and material skimmed off the top of a crucible. It seems peculiar that the fourth and largest piece (25 × 20 × 20 mm) was not recycled as it must have still contained a considerable quantity of metal.[1]

Silica-rich slag

Room 21, on the south side of the *domus* peristyle, produced a little under half of all the silica-rich slag recorded, from a single Phase 7 rubble layer (5298). Almost all of the remainder of the slag derived from the peristyle (Room 16), from a range of features (3042, Phase 4; 5629, Phase 5–6; 5362, Phase 9; 5322, Phase 12–13; 1899, Phase 13–14) assigned dates between the 4th and 14th century. Small quantities of silica-rich slag were also recovered from other locations around the periphery of the *domus* courtyard, including the long gallery (Room 18, 5058, Phase 8) and the west range (Room 27, 5319, Phase 14).

It is common that not all of the slag in an assemblage can be assigned to a specific activity. This generally concerns residues that comprise fuel ash and/or clay, and which were produced in pottery kilns or in domestic fires. Fuel ash slag is also produced in a smithing hearth, an event that becomes clear when the fuel ash slag reacts with iron oxide. The amount of iron oxide in the slag is thus the criterion for its definition as smithing slag or fuel ash slag.

All silica-rich slag found at the Triconch Palace was formed by the exposure of clay to high temperatures in a reducing atmosphere. Some pieces showed only a glazed upper surface, indicating over-exposure to heat, whereas other pieces became viscous and showed horizontal and diagonal flowing structures. The latter were hard and dense and had a matt greenish finish whilst the core was grey. They showed the negative imprint of the surface over which they had flowed, which was free of grasses and charcoal. Often, white mortar was attached to the slag and covered old breaks. It therefore appears as though the slag was used as a building material. The material could have formed in, for example, a kiln for brick making.[2] The other silica-rich pieces of slag may also have formed in a kiln.

Other finds

Non-specific slag pieces were found in the rooms of the Triconch Palace bordering the *domus* courtyard, in Phase 9 kilns (5267, 5277) in Room 21 to the south, and in the fill (5376) of a Phase 8 burial in Room 29 to the west. Aside from these, the Merchant's House area produced finds from two late (Phase 14) contexts, a rubbly cultivation soil deposit (3066) overlying Room 43 and the central yard Room 39, and a layer (3127) in the tower (Room 45) added to the south end of the east wing (Room 38).

Amongst the slag-like materials were fragments of pottery, concrete and, possibly, iron stone. The latter, from kiln fill 5277, appeared as reddish-brown flakes, not unlike hammerscale scales. Their colour and magnetic qualities indicated that they were heated, which is confirmed by their presence within a kiln.[3] It is possible that iron stone was used in the construction of the kiln.

Conclusion

Both iron and copper alloy were worked in the area of the Triconch Palace at Butrint during late antiquity and the later Middle Ages, although it is possible that some of the evidence from late phases represents the residual occurrence of slags. Relatively few of the samples could be associated with actual activity areas, although hammerscale was clearly associated with late antique furnaces in the south wing (including 5088 in Room 18 and 1561 in Room 24) indicating their use for blacksmithing. It is possible that high-carbon steel was forged and welded. A crucible with residual copper (alloy) was recorded from a mid-6th-century deposit (4051) in the Merchant's House (Room 39). Copper alloy was melted in thin-walled crucibles with (probably) a flat base. The metal was cast and the end product subsequently worked on an anvil. The presence of copper prills in medieval hammerscale might point to the use of copper-rich flux

Residues from metalworking were found distributed across the site and specific smithies cannot be located with total precision: the collection of hammerscale and other tiny metalworking fragments from the residues of soil samples has skewed the overall distribution of the finds. However, even with this taken into consideration, it is possible to highlight general areas where metal smithing occurred, particularly where the physical remains of hearths can be noted. The south wing (Rooms 18, 21, 24) of the *domus* peristyle courtyard contained foci of metalworking (particularly relating to Phases 8 and 9 *c.* AD 525–75), which left behind slag, hammerscale and smithing hearth bottoms in these areas as well as residually elsewhere on the site (Fig. 5.1). Numerous kilns or hearths were present in the long gallery (Room 18) and adjoining Room 21, with the gallery in particular subject to a number of low-key industrial enterprises utilising tiled hearths, ovens and furnaces (Bowden *et al* 2011d, 87–105). The former reception room (24), located at the west end of the long gallery, was also utilised for iron smithing during the same period, and served as shelter for a sequence of substantial furnaces.

The later medieval period also saw the use of the Merchant's House area for metalworking (Fig. 5.2). The evidence of the hammerscale conglomeration from post-hole fill 4073 provides a glimpse of sophisticated metalworking in the late 12th or early 13th century, associated with a succession of adjacent hearths. The collected evidence from this post-hole is indicative of the working of carbon steel, the use of copper flux for welding, and possibly silver working.

Although the evidence is fragmented, due partly to limited sampling and partly to the post-depositional disturbance that has affected all the Triconch sequences, it is therefore clear that this channel-side location saw considerable use for small-scale metalworking during its long history. Although this use was intermittent it is also clear that considerable skill and knowledge of metallurgy was employed by those involved. The implications of this for our understanding of life in the Triconch Palace area will be examined further in Chapters 10 and 11.

Notes

1 The density of this piece was 3.6 g/cm^3. The specific weight of tin-, zinc- and lead-bronzes ranges between 7.4–8.9 g/cm^3. Although possible vesicles affect the comparison between density and specific weight, it becomes clear that the Triconch Palace slag is not made of pure copper alloy.

2 One sample was studied using reflected light microscopy. It consisted of an amorphous matrix with coarse, elongated crystals as well as needles and dendrites. It is assumed that these crystals are fayalite and hercynite, alumina and wüstite. The sample contained regularly distributed angular, light grey crystals. Without using EPMA the author does not know which elements make up the sample.

3 Only metallic iron and the iron oxide magnetite are magnetic. This means that the original material, which would have been haematite, must have been reduced.

6 The ancient and early medieval coins from the Triconch Palace *c*. 2nd century BC – *c*. AD 600

T. Sam N. Moorhead

Introduction

This report covers 1105 ancient and early Byzantine coins, dating prior to *c*. AD 600, found in the excavations at the Triconch Palace from 1994 to 2003. The corpus includes Greek, Roman, early Byzantine and Vandalic pieces. Coins from the 1994–99 seasons published by Peter Guest are included and identifications have been revised as necessary (Guest *et al* 2004, 301–4). However, not all of these coins survive in the archives and it is probable that a full concordance will never be possible.[1] All the coins from the 2000 to 2003 seasons have been studied by the author and he is grateful for second opinions provided by his colleague at the British Museum, Richard Abdy. In the catalogue (Appendix 6.1), each coin has been given an individual number to enable later researchers to access the material easily.

Although some coins might have come from dispersed hoards, all the coins have been included in the same catalogue. This is discussed in more detail below. I do not feel that this changes the overall picture presented by the coins. It should be noted that this report was originally written in 2007 and a summary article published in *Numismatic Chronicle* (Moorhead 2007). This version has been updated in the light of subsequent archaeological interpretation by Will Bowden and some recent numismatic research (see Moorhead 2012; 2013; Bijovsky 2012; Guest 2012). It is strongly advised that when considering the numismatic record at Butrint, readers also consult the coin finds from the nearby Roman villa and Early Christian church at Diaporit (Moorhead forthcoming), Vrina Plain (Moorhead 2019) and the Forum (Baldi, Abdy and Moorhead forthcoming); an initial summary of coin finds across these sites was published in 2007 (Moorhead, Gjongecaj and Abdy 2007), although it does not cover all the coins found.

The condition of the coins

The vast majority of the coins are small bronze pieces of 16 mm or less in diameter, many being less than 10 mm. The smaller coins, mostly of the late 4th to the 6th century, rarely survive in good condition as site-finds but the environmental conditions of the Triconch have exacerbated the problem with the constant rise and fall of ground water. Despite the prodigious efforts of Pippa Pearce, a conservator at the British Museum, only 398 of the 1104 coins can be assigned to determined date ranges with any form of confidence; normally, I would expect to be able to identify over 90%. However, rather than discard the poorly preserved coins, an attempt has been made to assign them to broader periods where possible; analysis below does show this to be a valid exercise because it is clear that 5th-century coins suffer more from the vagaries of time than their 4th-century counterparts.

Coins per period

The coins have been assigned to periods to provide an overview of their chronological spread. As noted above, 398 coins have been assigned to specific periods, comprising 36% of the total number of coins found. Of the other coins it is possible to date them to general periods – this is important as it does show that a higher proportion of 4th-century coins are identifiable than 5th-century ones. Table 6.1 provides an overall summary of all of the coins.

For coins dating up to 402, Richard Reece's periods for the study of Roman coins from Britain have been followed (Reece 1972), but four later periods have been added (Table 6.2). The years 402 to 445 appear to be a natural period (period 22) as it covers the main issues of Rome up to *c*. 435, but does not include the monogram issue of Theodosius II at Constantinople which began in 445. It is easiest to deal with all of the monogram issues in one period (23: 445–98), although the author is aware that there are a few 6th-century monogram issues. For the 6th century, the coinage from the reforms of Anastasius to the death of Justinian I are covered in one period (24: 498–565), adding in the few Vandalic pieces of *c*. 498–526. Finally, the last period deals with the late 6th century (25: 565–602). No coins can be assigned after 602. Appendix

Table 6.1. Summary of the coins from the Triconch Palace (continued over the next two pages)

Period	Reverse Type or Emperor	Date	Mint	Cert	Unc	Total	Nos
Pre-AD300	Thessalian League	196–146BC		1		1	1
	Roman Imperial and Provincial	27BC–*c.* AD 300		8	3	11	2–12
300–18	IOVI CONSERVATORI	311–18		1		1	13
	SOLI INVICTO COMITI	316	Trier: 1	1		1	14
	PRINCIPI IVVENTVTIS	317		1		1	15
318–30	PROVIDENTIAE AVGG; Camp-Gate	316–20	Heraclea: 1	1		1	16
	D N CONSTANTINI MAX AVG; VOT XX	320	Thessalonika: 1	1		1	17
	??VICTORIAE LAETAE PRINC PERP	*c.* 320			1	1	18
	CAESARVM NOSTRORVM; VOT V	321; *c.* 320–24	Rome: 1	2		2	19–20
	CAESARVM NOSTRORVM; VOT X	*c.* 320–24		1		1	21
	PROVIDENTIAE CAESS; Camp-Gate	326–28; *c.* 324–28	Thessalonika: 1	2		2	22–3
330–48	GLORIA EXERCITVS; 2 standards	330–36	Thessalonika: 1	1		1	24
	GLORIA EXERCITVS; 1 standard	335–37; 335–41		2		2	25–6
	VICTORIAE DD AVGGQ NN; 2 Victories	347–48		2		2	27–8
	VOT XX MVLT XXX	347–48		1		1	29
348–64	FEL TEMP REPARATIO; Fallen Horseman	348–55	Antioch: 1 Nicomedia: 1	4		4	30–3
	FEL TEMP REPARATIO; Fallen Horseman	355–61	Nicomedia: 1	8		8	34–41
	Probable Barbarous FEL TEMP REPARATIO; Fallen Horseman	355–61	‘Thessalonika’: 1	8	5	13	42–54
	SPES REIPVBLICE	355–61	Constantinople: 1	6	3	9	55–63
	Unclear Vota	361–64			1	1	64
364–78	GLORIA ROMANORVM	364–78	Thessalonika: 2 Constantinople: 1	11	4	15	66–80
	SECVRITAS REI PVBLICAE	364–78	Aquileia: ?1 Thessalonika: 1; ?1 Antioch: 1 ?Alexandria: 1	15	10	25	81–105
	Uncertain rev.	364–78			3	3	106–8
378–88	VOT XX MVLT XXX			1		1	113
	?VOT XV MVLT XX			1		1	114
	VOT X MVLT XX		Thessalonika: 1; ?1 Cyzicus: 1 Alexandria: 1	7	2	9	115–123
	VOT X MVLT X(X or V)				1	1	124
	VOT V		Cyzicus: ?1	2	2	4	125–28
	Uncertain vota types			6		6	129–34
	GLORIA REI PVBLICAE; Camp-Gate	383–88	Thessalonikia: 2	2		2	135–6
	?VICTORIA AVG; 2 Victories	383–88		2		2	137–8
388–402	VICTORIA AVGG(G)	388–402	Western mints	4		4	139–42
	SALVS REI PVBLICAE	388–402	Aquileia: 1; ?2 C’nople: 4; ?1 Nicomedia: 4; ?1 ?Cyzicus: ?1	66	18	84	143–226
	VICTORIA AVGGG or SALVS REI PVBLICAE	388–402		1	4	5	227–31
	VIRTVS EXERCITI	395–401		1		1	233

Period	Reverse Type or Emperor	Date	Mint	Cert	Unc	Total	Nos
	SALVS REI PVBLICAE; Victory std. 401–03	1	1 234				
	SALVS REI PVBLICAE; Victory std.	383–92 or 401–03	Nicomedia: 1	1		1	235
402–45	CONCORDIA AVGGG, Cross	404–06		2		2	236–7
	CONCORDIA AVG or AVGGG, Cross	404–06	C'nople: 1; ?1	7		7	238–44
	VRBS ROMA FELIX	404–08	Rome: 2; ?1	2	1	3	245–7
	GLORIA ROMANORVM; 3 emperors	404–08		5		5	248–52
	GLORIA ROMANORVM; 2 emperors (both types)	408–23	Constantinople: ?1	7		7	253–9
	GLORIA ROMANORVM; 3 or 2 emperors	408–23		3		3	260–2
	VICTORIA AVGG	?410–23	Rome: 2	2		2	268–9
	VICTORIA AVGG	*c.* 410–35	Rome: 5		5	5	270–4
	?SALVS REI PVBLICE	*c.* 423–35	Rome: 8		8	8	275–82
	?VICTORIA AVGG	*c.* 410–35	Rome: 11		12	12	283–94
	Victory types	*c.* 410–35	Rome: 5		5	5	295–9
	?VICTO AVG or VAGT VICTOR; emperor	425–35	Rome: ?1		1	1	300
	Unclear captive type	*c.* 425–35 or later	?		1	1	301
	CONCORDIA AVG; Victory with two wreaths	425–35		2	1	3	302–4
	CONCORDIA AVG or VICTORIA AVGG	410–35		2		2	305–6
	Cross in Wreath	425–35	Rome: ?2 Cyzicus: 1	6	11	17	312–28
	Unclear cross types	404–06 or 425–35	Rome: ?1 or 2	4	2	6	329–33
	VT XXX V	?435		1		1	334
445–98	Theodosius II Monogram	445–50	Constantinople: 1	1		1	335
	Marcian Monogram	450–57		6	9	15	336–50
	Lion	457–74		2		2	351–2
	Leo Monogram	457–74	Constantinople: 1	3	3	6	353–8
	Leo emperor type	457–74		1	1	2	359–59a
	Empress Verina	457–74		5	4	9	360–8
	?Libius Severus Monogram	461–65	Rome: ?1		1	1	370
	?Anthemius Monogram	467–72	Rome: ?1		1	1	371
	?Zeno emperor type	474–91	?Cyzicus: 1		1	1	372
	?Zeno Monogram	474–91			2	2	373–4
	?Leo or Zeno types	457–74			8	8	375; 376–81
	Anastasius Monogram	491–98 (and later?)		4	2	6	382–7
Totals				*237*	*134*	*371*	
498–527	Justin I , Follis	518–27	Constantinople: ?1	1		1	388
	Justin I, Nummus	518–27	Antioch: ?1	1		1	389
	Emperor?, Half Follis	Before 538/9		1		1	390
527–65	Justinian I, Follis	538/9; ?541/2; ?558/9; ?559/60	Constantinople: 1, ?2	4		4	391–4
	Justinian I, Half Follis	538/9; 548/9; 562/3	Carthage: 1 Antioch: 1 Thessalonica: 1	3		3	395–7
	Justinian I, Nummus	533/4; 547	Carthage: 7; ?4	7	4	11	398–408
565–602	Justin II, Follis	574/5	Constantinople: 1	1		1	409
	Justin II, Half Follis	571/2	?Thessalonica: 1	1		1	410

Period	Reverse Type or Emperor	Date	Mint	Cert	Unc	Total	Nos
	Justin II (or Tiberius II), Half Follis	570/1 (or 578/9)	?Thessalonica: 1	1		1	411
	?Tiberius II or Maurice Tiberius	578–602			1	1	412
	Maurice Tiberius, Follis	589/90	Nicomedia: 1	1		1	413
	Maurice Tiberius, Half Follis	?583/4; 593/4	?Thessalonica: 1 Constantinople: 1	2		2	414–15
	Maurice Tiberius, Decanummium	582–602	Rome	1		1	416
	Maurice Tiberius, Nummus[1]	582–602	Carthage	1		1	417
496–523	Vandalic – ?Thrasamund	496–523	Carthage: ?2 or 4		4	3 (1??)	418–21
Totals				*25*	*9*	*33–4*	
Misc.	Cast Coins	?late 5th century		1	21	22	427–48
	Lead Coin	?5th/6th century			1	1	449
Uncertain	4th century or earlier					5	450–4
	4th century					20	65; 109–12; 455; 457–77
	Late 4th– early 5th century					123	232; 263–7; 308–11; 456; 472–582
	4th to 5th century					90	583–672
	5th century (or later)					14	673–86
	Unclear monograms						
	5th century (or later)					81	687–767
	Possible monogram and related pieces						
	5th century					37	301; 768–803
	5th/6th century					266	423–6; 804–1065
	4th–6th century or earlier					39	1066–1104
	?1st–6th century					1	1105
Totals				*1* 263	*22* 143	*699* 1103–4	

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[1] Note that since the writing of the catalogue in 2007 this coin has been reassigned to the reign of Justinian I, with suggested dates of *c.* AD 533–65: see Bijovsky 2012, 320. However, the original catalogue number is retained here to ensure consistency with the coins as stored at Butrint.

Table 6.2. Triconch coins by period

Period	Total	%	Total with uncertain included	%
Pre-300	12	3.01	12	1.72
15: 296–317	3	0.75	4	0.6
16: 317–330	8	2.01	10	1.44
17: 330–348	6	1.51	7	1.00
18: 348–364	35	8.80	42	6.03
19: 364–378	43	10.80	52	7.50
20: 378–388	26	6.53	42	6.03
21: 388–402/3	91	22.9	145	20.8
22: 402/3–445	89	22.4	142	20.4
23: 445–498	52	13.1	207	29.7
24: 498–565	24	6.03	24	3.45
25: 565–602	9	2.26	9	1.3
Total	**398**	**100**	**696**	**100**

Note: For totals including uncertain coins
Periods 15–19: 20 (assigned proportionally to existing statistics)
Periods 20–22: 123 (assigned proportionally to existing statistics)
Period 23: 132 & 23(all assigned to Period 23)

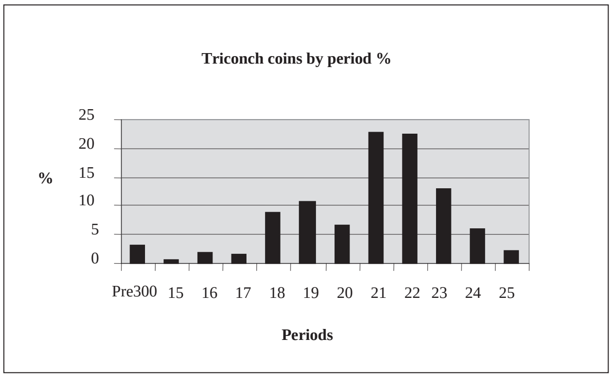


Figure 6.1. Triconch coins by Reece period (%), with periods 22–25 added by the author

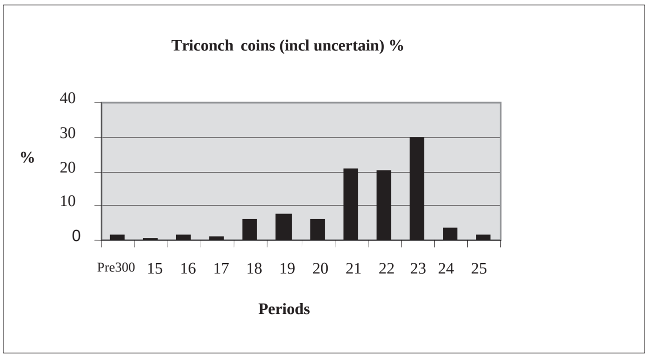


Figure 6.2. Triconch coins, including better-preserved uncertain, by period (%)

6.2 shows all the coins used in the analysis. Figure 6.1 is a bar-chart for the coins that can be assigned to specific periods; Figure 6.2 is a similar bar-chart that includes the better-preserved uncertain coins.

The results show that 3.02% of the coins pre-date the 4th century. However, the ubiquitous issues of the first half of the 4th century (periods 15–17: 296–348) are poorly represented with only 17 coins (4.29%). There is a significant rise in the number of coins lost for the period from 348 to 388 with 104 coins (26.13%), but the peak for the assignable coins comes in the period 388 to 445 with 179 coins (45.1%).

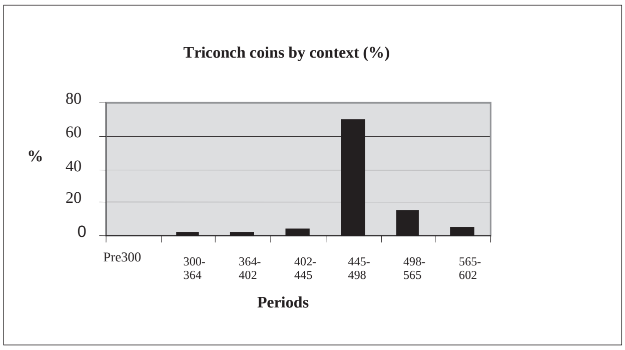


Figure 6.3. Bar chart showing the number of coins lost by context (%)

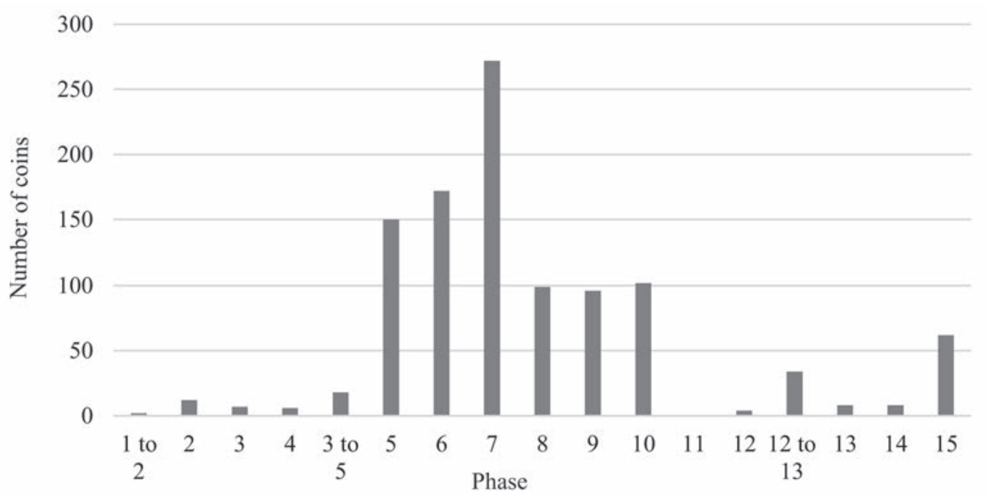


Figure 6.4. Triconch coins as deposited by phase, based on the total number of identified coins from stratified contexts. Phase dates are as follows: 1 (pre-3rd c.); 2 (3rd to 4th c.); 3 (c. AD 400); 4 (c. AD 420); 5 (c. AD 420–50); 6 (mid- to late 5th c.); 7 (early 6th c.); 8 (c. AD 525–50); 9 (mid- to late 6th c.); 10 (late 6th to 7th c.); 11 (mid-7th to early 10th c.); 12 (10th c.); 13 (11th to 12th c.); 14 (13th to 14th c.); 15 (15th c. and later)

Furthermore, amongst the unassigned coins there are over 100 which probably also belong to the period 378–445, mostly probably falling between the years 388 and the very early 5th century.

There are 52 coins (13.1%) for the period from 445 to 498, the era of the monogram pieces. Were one to add the 132 or more probable and uncertain monogram pieces to this, and the 23 cast coins which are probably also from the second half of the 5th century, then this total rises significantly to over 200 (see Cat nos 673–803 and 427–48). The 6th century is represented by only 30 Byzantine coins and possibly three or more Vandal coins (nos 389–421), but there are certainly other Byzantine *nummi* amongst the large residue of coins.

Overall, it does seem that the majority of coins lost at the Triconch Palace date to between 388 and 498, some 58.4% of the total. If one assigns the better-preserved uncertain coins to periods (see Fig. 6.2 and Table 6.2) this proportion increases to 70.9%. A glance at Figures 6.1 and 6.2 shows how the inclusion of uncertain coins does have a major impact, with the largest number appearing to come from between 445 and 498 (29.7%).

Deposition of coins

Before one considers the changing nature of currency at the Triconch, one has to look at the coins in their archaeological context. Appendix 6.2 shows all the coins listed by context with details on the latest coin in each group, allowing us to see what combinations of coins are being lost or deposited in the same contexts. If one calculates the number of coins lost in various periods, one is able to build up a picture of coin loss. In Table 6.3, the number of coins lost in several broad periods of coin issue is shown. What is immediately clear in Figure 6.3 is that most coins were deposited in the archaeological record in contexts for which coins of 445–98 are probably the latest pieces.

This can be developed further by showing coins lost according to archaeological phase (Figs 6.4–6.6) (with phasing data derived from a combination of coin and ceramic dating and stratigraphy). The analysis shown in Figures 6.4–6.6 only includes identified coins from stratified contexts and thus the numbers concerned are smaller than the overall total of coins recovered. It should also be noted that most of the excavated pre-10th-century

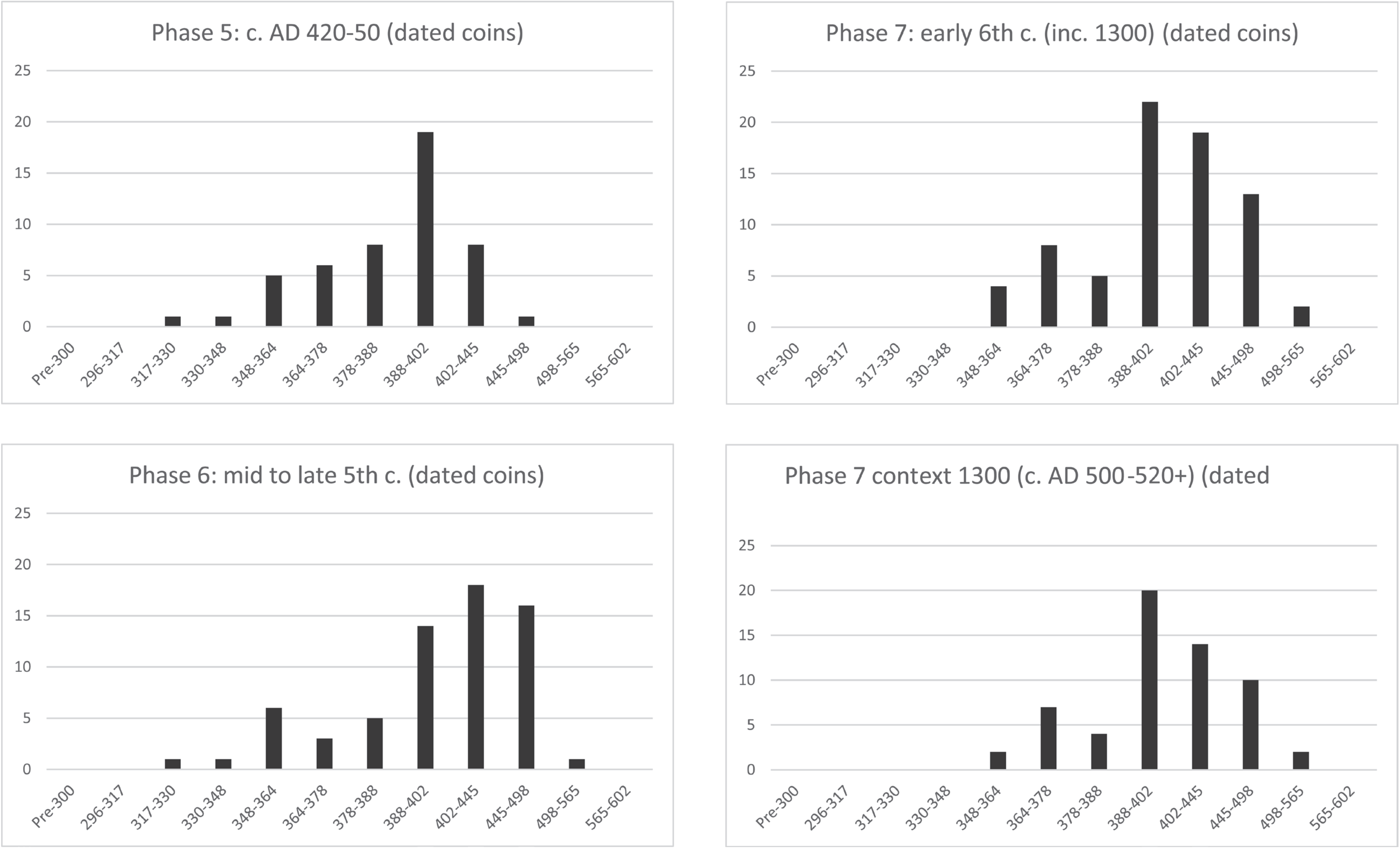


Figure 6.5. Triconch coins grouped by phase, showing contexts of the 5th century (Phases 5 and 6). Coins later than the phase dates are likely to be intrusive

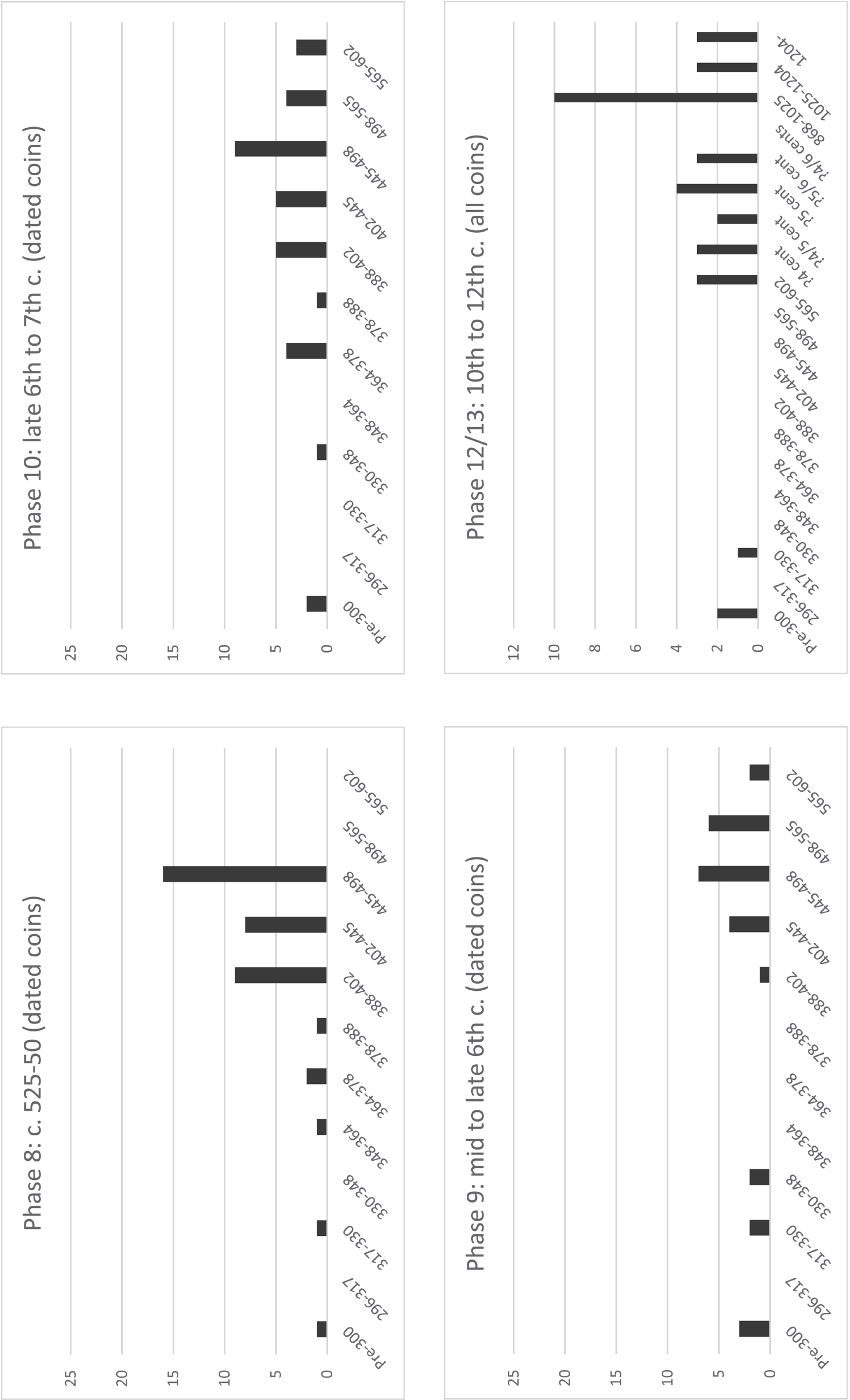


Figure 6.6. Triconch coins grouped by phase, showing contexts of the 6th century (Phases 7 to 10).

Table 6.3. Number of coins found in contexts by coin period

Period	Number of contexts with no coin later than this period	Total number of coins in these contexts	%	Cumulative total of coins from contexts	Total number of coins for period covered	Cumulative total of coins
pre-300	1	1	0.16	1	12	12
c. 300–364	10	15	2.4	16	52	64
364–402	10	13	2.1	29	160	224
402–445	13	27	4.33	56	89	313
445–98	43	433	69.4	489	52 (up to 208)	365 (up to 521)
498–565	11	103	14.8	592	24	389 (up to 545)
565–602	8	32	5.12	624	9	398 (up to 557)
Totals		**624**	**100**		**398 (557)**	
868–14th cent	40	114		738	81 (tbc)	479 (up to 638)

Table 6.4. Mints represented by the Triconch coins

Mints	pre-300	15	16	17	18	19	20	21	22	23	24	25	Totals
?Larissa	1												1
Themisonium	1												1
‘Western’								4					2
Trier		1											1
Rome	2		1						33(4)	(4)		1	34(8)
Aquileia						(1)		1(2)					1(3)
Siscia													
Thessalonica			2	1	(1)	3(1)	3(1)				1	(3)	9(6)
Heraclea			1										
Constantinople					1	1		4(1)	2(1)	2	1(3)	2	15(5)
Nicomedia					2			5(1)				1	7(2)
Cyzicus							1(1)	(1)	1	(1)			2(3)
Antioch					1	1					1(1)		3(1)
Alexandria						(1)	1						1(1)
Carthage											7(6)	1	8(6)

Notes:
( ) = uncertain or barbarous
23 cast coins (427–48) are probably from the Levant or Egypt

archaeological deposits date to the 5th and 6th centuries, which will undoubtedly impact on the picture of coin use and deposition. The total coins deposited by phase shows a peak in Phase 7 (*c.* 500–20), although this picture is undoubtedly skewed by a single coin-rich context (1300) that was partially sieved and produced 213 coins (of the 282 recorded for Phase 7), of which 94 were recovered through sieving. However, context 1300 clearly indicates that significant quantities of late 4th- and 5th-century coins remained in circulation at the start of the 6th century. Overall the analysis does show how the volume of coins in circulation did apparently fall in the 6th century, while a large number of 4th- and early 5th-century coins were apparently deposited in the later 5th and 6th centuries (see below).

Mints

The mints (Table 6.4) are discussed in the commentary that follows but a few general points can be made here. The disparate nature of the coin record before AD 300 means that the coins come from a wide range of sources including possibly Larissa in the Greek period and Rome and Themisonium in the earlier Roman Imperial period. The western mints of Gaul are represented up until the end of the 4th century, but eastern mints begin to dominate in coin supply from the mid-5th century. Thessalonica, as one might expect, is well represented, as is the case for hoards and other sites in the southern Balkans (Duncan 1993, 71, 169). However, it is surprising that there are no coins from the Balkan mint at Siscia. In the early 5th century, large module AE 3 coins come from eastern mints, but there is

Table 6.5. Relative proportion of SALVS REI PVBLICAE issues to VIRTVS EXERCITI issues

Site	SALVS REI PVBLICAE	VIRTVS EXERCITI	Reference
Triconch	84	1	Cat nos 143–226; 233
Rome	57	0	Reece 2003, 199
Nicopolis ad Istrum	39	25	Butcher 1995, 296–8
Corinth	243	7	Edwards 1933, 112ff
Kenchreai (Corinth Port)	63	3	Hohlfelder 1978, 46ff
Nemea	46	3	Knapp and Mac Isaac 2005, 198ff
Athens	1680	53	Thompson 1954, 54ff
Sardis	472	467	Buttrey *et al.* 1981, 172ff
Beirut	190	194	Butcher 2001–2, 219ff

also a large quantity of AE 4 coinage from Rome between *c.* 410 and *c.* 435. This is also supplemented by some AE 4 eastern issues like the Theodosian cross-in-wreath types.

Although there might be two monogram pieces from Rome for the period 445–98, most of the coins come from eastern mints. In the 6th century, Constantinople and Thessalonica are the major suppliers of large denomination base coins, but there are a significant number of *nummi* from Carthage which shows another axis of coin supply. Finally, there are probable cast *nummi* from the late 5th century which are likely to have come from Egypt.

Discussion by period

Aspects of the following discussion have already been covered in a general report on Roman coins from Butrint, the Vrina Plain and Diaporit (Moorhead *et al* 2007). However, this report concentrates on the Triconch Palace.

*Pre-**c**. AD 300*

The 12 coins from the 2nd century BC to the 3rd century AD come from a variety of sources. There are Greek issues, notably a coin of the Thessalian League, 196–46 BC (no. 1). Three certain Roman imperial coins cover a wide range, being struck for Augustus in 7 BC, Commodus in AD 184/5 and possibly for Gallienus, 260–68 (nos 2, 3 and 9). There are several poorly preserved pieces which are probably Roman provincial pieces. One might be from the mint of Caesarea in Cappadocia (no. 4), but there is a well-preserved piece of Julia Domna from Themisonium in Phrygia (no. 6). These coins do show how base-metal provincial issues could travel considerable distances.

***c**. AD 300–64*

The 52 coins from this period come from common issues. The IOVI CONSERVATORI and SOLI INVICTO COMITI pieces of the period *c.* 311–16 are reduced-sized *folles* (nos 13 and 14). The latter piece is from Trier in Germany. They are followed by eight AE 3 coins of the period 317–30 which come from a variety of mints: Rome, Heraclea and Thessalonica. Thessalonica is the only mint that can be identified amongst the six coins struck between 330 and 348.

The FEL TEMP REPARATIO coins can be split into two main groups: official (nos 30–41) and barbarous copies (nos 42–54). The majority of the official coins are AE 3 module pieces and are joined by the SPES REI PVBLICE issues in the period 355–61. One of the barbarous pieces is copied from a coin of Thessalonica; the other mints identified are eastern: Constantinople (1), Nicomedia (2) and Antioch (1).

Analysis of coins by context (Table. 6.3) shows how only 15 coins of 300–64 come from contexts in which the latest coins date to this period. When coins of this period are placed in their archaeological phases, we find that of the 38 coins of this period that come from well-stratified and phased contexts (Figs 6.5 and 6.6), 13 come from 5th-century contexts (Phases 5 and 6), while 11 come from 6th-century contexts (Phases 7–10).

AD 364–402

The 43 coins for the Valentinianic period (19: AD 364–78) are of the common GLORIA ROMANORVM (nos 66–80) and SECVRITAS REI PVBLICAE (nos 81–105) types, coming from a wide variety of mints: Aquileia (?), Thessalonica, Constantinople, Antioch and Alexandria.

The 26 coins from the period 378–88 are dominated by the AE 4 vota issues from eastern mints: Thessalonica, Cyzicus, and Alexandria. There are two coins from types exclusive to Thessalonica, the GLORIA REI PVBLICAE camp-gate issue (nos 135–6).

The period 388–402 is dominated by the SALVS REI PVBLICAE Victory issues which are ubiquitous on sites across the Roman Empire (nos 143–226). Mints represented are Aquileia, Constantinople, Nicomedia and Cyzicus. There are four VICTORIA AVGG(G) types from western mints (nos 139–42). What is notable is the lack of AE 3 coins from this period, with only one VIRTVS EXERCITI piece (no. 233), whereas there are 84 AE 4 SALVS REI PVBLICAE pieces. Table 6.5 shows that this preponderance of Salus over Virtus types is normal at

Table 6.6. Relative proportions of Justinianic nummi to larger denominations

Site	Number of Justinian Pentanummia or larger denomination	Number of Justinianic Nummi	Reference
Triconch	6	7 to 11	Cat nos 399–409
Corinth	41	*c.* 10	Edwards 1933, nos 758, 760 & 760–1; 10–27
Athens	130	79 or more	Thompson 1954, nos 1701–4; 1718 & 1722
Sardis	9	9	Buttrey *et al.* 1981, nos 54–71
Beirut	14	10	Butcher 2001–2, nos 2469–71; 3108–28

other sites in Greece (Corinth, Nemea and Athens). The proportions are closer at Nicopolis *ad Istrum* in Bulgaria, but at Sardis and Beirut there is a general equality of numbers for the two issues. It seems that the Aegean Sea is a major barrier, the Virtus pieces not travelling to its western shores in great numbers. Although only a small sample, none of the Virtus issue is recorded by Reece in his report on coins from Rome. Therefore, it can be argued that the Triconch coins of this period do display the same profile as neighbouring sites in Greece.

Some 81 out of 160 coins in this period are found in contexts with 5th-century or later coins. This pattern of coins of this period being deposited in the 5th and 6th centuries becomes even more apparent when coins are grouped by archaeological phase (Figs 6.5 and 6.6). This shows that 33 coins of the period were lost in Phase 5 (*c.* 420–50), 21 in Phase 6 (mid- to late 5th century) and 51 in Phases 7 to 10 (6th century).

This pattern of coin-loss is consistent with other sites. Reece notes that at Carthage the great majority of 4th-century coins were lost in the 5th and 6th centuries (Reece forthcoming). The same picture is seen at Beirut where Butcher shows that issues after 330 tended to remain in circulation (Butcher *et al.* 2003, 115) and at St. Lot's Monastery in Jordan (Bowsher 2012). Closer to Butrint, the survival of 4th-century coins is noted in 5th-century contexts at Nemea (Knapp and Mac Isaac 2005, 185). This phenomenon is also shown markedly at Diaporit where a large number of coins from the 4th and first half of the 5th century were still in circulation to be deposited in the later 5th and 6th centuries (Moorhead forthcoming).

What is interesting is that it has taken archaeologists and site numismatists a long time to prove what the hoard evidence had already told us. The Volo Hoard (Greece), deposited about 380, had 83 4th-century coins out of a total of 1064 (Adelson and Kustas 1962; RIC X, clxvi–ii); the Yale Hoard (Balkans?) deposited about 470 had 92 4th-century coins out of 515 (Adelson and Kustas 1960; RIC X, clxix); the Zacha Hoard (Greece), deposited around 550, had 10 4th-century coins out of 1179 (Adelson and Kustas 1964; RIC X, clxx). The Zacha Hoard suggests that the proportion of 4th-century coins in circulation had declined significantly in the 6th century. However, another hoard, dating to about 551, from Gush Halav in Israel still has as many as 80 3rd- and 4th-century coins out of a total of 418 (Bijovsky 1998). The picture of 4th-century coins remaining in use into the 6th century is certainly reinforced by the Triconch Palace evidence in which 51 of the 122 stratified identifiable coins of 364–402 were found in 6th-century contexts (Figs 6.5 and 6.6).

Possible hoards at the Triconch Palace are discussed separately (see below). In this analysis all coin finds have been included, but amongst the Triconch finds there are several parcels of coins which were found in close proximity to one another. If these were hoards, the larger groups also support the thesis for the continuation of circulation of 4th-century coins into the 5th and the 6th centuries (see Table 6.8).

AD 402–45

The 89 coins from this period straddle the transition from a predominance of AE 3 module coins to lesser-quality AE 4 issues. The earlier AE 3 issues in this period are quite easy to identify. The VRBS ROMA FELIX issue from Rome (nos 245–7) and GLORIA ROMANORVM standing emperor types (nos 248–62) are well-represented. The latter issues came from eastern mints, although only Constantinople can be identified. Furthermore, the AE 4 CONCORDIA AVG(GG) cross types are also present (nos 236–44).

The bronze issues of Rome from *c.* 410 to *c.* 435 are more difficult to identify precisely. What appears clear is that there was a large volume of coins of Honorius, Johannes and Valentinian III travelling east from Rome (nos 268–300). Conversely, a number of coins were travelling westwards from eastern mints, notably the cross-in-wreath types of Theodosius II (nos 312–17). It is in this period that the currency pool of bronze coins was being filled by large issues from Rome in the west, and a whole range of mints in the east. This does suggest a coherent economy in the mid- and eastern Mediterranean at this time.

It is difficult to compare the Triconch Palace at this time with other sites in the region because the coinages between 410 and 435 were not fully understood when several of these sites were published. However, at Nemea there were nine Rome pieces (2.4% of the Roman and early Byzantine coins; Knapp and Mac Isaac nos 2279–82 and 2344–8) whereas at the Triconch there are 33 pieces (8.3%). The general view from the reports at Corinth and Athens seems to show that there are also proportionally fewer Rome coins than at Butrint (Edwards 1933; Hohlfelder 1978; Thompson 1954). At Nicopolis *ad Istrum* there are no certain Rome coins, but 18 Theodosian cross-in-wreath pieces (Butcher 1995, 301). At Sardis, there are 33 or more Rome pieces (about 3%). It is tentatively suggested that the Triconch coins show that Butrint was drawing on a larger proportion of Rome coins in this period than sites to the east. This characteristic seems to be borne out at Carthage which also drew on a large number of coins of Valentinian III (Reece 2003a, 235).

AD 445–98

Coins from this period are often very poorly preserved and in many cases one cannot be certain whether they are not later 6th-century issues. However, enough coins can be identified to show that there was a significant number of late 5th-century pieces in circulation. Most of the coins are monogram issues struck for the eastern emperors Theodosius (no. 336), Marcian (nos 337–51), Leo (nos 354–9) and Zeno (nos 374–5). No. 354 is a new variety of a monogram piece of Leo from Constantinople with a mintmark CN (as opposed to CON). There are also lion (nos 352–3), Verina (nos 361–9) and emperor (no. 360) types for Leo. It is possible that there are two monogram types for western emperors struck at Rome (nos 371–2), but it is clear that by this point the eastern mints dominated the currency pool in which Butrint is operating.

One point that is worth mentioning is that at sites to the north in the Balkans, there is a paucity of coins from the late 5th and early 6th century. Peter Guest discusses this phenomenon at Dichin, where there are no issues between 474 and 518, and he goes on to consider the sites at Sucidava, Sadovec and Iatrus (Guest 2007; 2012). However, at Butrint and Diaporit there are coins of Leo, Zeno and Anastasius. Therefore, if there is a lack of supply or use of such pieces further north, this is not the case in the Butrint region for the period 474–98. This is a good example of how publication of site finds can help the study of regional currency circulation.

It is here that we can discuss a particular class of apparently cast late Roman coins which has been found on sites in the Mediterranean (nos 427–48). The flans of these coins are often very thin and the faces are normally blank. Some examples have casting sprues on their edges, often arrow-shaped. These coins were first recognised in Egypt by J. G. Milne (Milne 1926) and the author has identified a large number in Palestine (Moorhead 1983, iia, 151–4). The discovery of moulds does suggest that Egypt is the source. Some of the pieces did have recognisable types, notably crosses or a Victory; even Axumite coins were used as prototypes. Most recently, similar pieces have been identified at Beirut where Butcher regards them to have been in circulation by the third quarter of the 5th century (Butcher *et al.* 2003, 101). The examples from the Triconch are all apparently blank, but the author knows of no coins of this type this far west on the north side of the Mediterranean. It is also worth noting here the presence of one lead tessera (no. 449). Such pieces have been found near Izvoarele on the south bank of the Danube (Grierson and Mays 1992, 72) and at Nicopolis *ad Istrum* (Butcher 1995, no. 651), Sardis (Buttrey *et* al 1981, 222–4: 41 pieces) and in Palestine (Moorhead 1983, nos 1101–1212). It is quite likely that these pieces date from this period, many being the size of bronze *nummi*. There are also a number of coins from the Triconch Palace with globules of lead, a phenomenon that arose from the high lead content of many late Roman bronze coins (Charles 1981).

Period analysis shows that the largest proportion of coins from the Triconch Palace appears to be for the period 445–98. Furthermore, deposition analysis shows that there was a very high level of coin loss in contexts whose latest coins date to 445–98. This is supported by analysis of coins from phased contexts which shows that Phase 6 (mid- to late 5th century) and Phase 7 (early 6th century) contexts produced the greatest number of coins (although this is in part a reflection of the nature of the site and recovery bias). Context and hoard analysis has already shown that many 4th-century coins were still in circulation in the second half of the 5th century when it seems that any small denomination coin was acceptable in the currency pool. Butrint was firmly locked into the *nummus* economy that stretched from Carthage (Reece 2003a, 229–45; Humphrey 1976; 1978) to Athens (Thompson 1954) and Sardis (Buttrey *et al.* 1981) on the Aegean to Beirut (Butcher *et al.* 2003), Palestine (Moorhead 1983; Bijovsky 1998) and Egypt (Hahn 1980). At this time the gold *solidus* was worth as many as 7200 *nummi* according to *Novella* 16.1 of Valentinian III (Grierson and Blackburn 1986, 10). What does seem to be the case is that, however inconvenient, these small denomination coins did facilitate trade at the lowest levels and Reece has even suggested that at Carthage this was acknowledged by the Vandal authorities who supplied more to satisfy demand (Reece 2003a, 237). It is quite possible that the monetary reforms of Anastasius in 498 led to the obsolescence of many *nummi* but it is clear that these small coins continued to be used in the 6th century around the eastern half of the Mediterranean. This seems to be supported by the lack of post-reform coins at Butrint prior to the reign of Justinian I (527–65; see below).

AD 498–565

The author believes that there are at least two official or barbarous Vandalic pieces of Thrasamund (496–524) (see nos 418–21). There is one *nummus* of Justin I (no. 389), but the reforms of Anastasius are represented by a *follis* of Justin I (no. 388). However, whereas the Triconch, in contrast to northern Balkan sites, has plenty of coins for

Table 6.7. Possible hoards from the Triconch Palace

Context	Freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4 cent	4/5 cent	5 cent	5/6 cent	4/6 cent	868–1025	1025–1204	Unc	Latest Coin/Comments
1009, 473a–d	4	1													1		2					SF 473d (Cat 745): ?5/6
4056, 2662a–b	2								1									1				SF 2622b (Cat 177): 388–402
1300, 449a–n	14						1		1	1					5	1	3	2				SF 449h (Cat 242): ?404–06; several: ?5/6
1300, 450a–j	10							1		1		1?			2	1	3	1				SF 450c (Cat 289): *c.* 410–35; SF 450e (Cat 409): ?5/6, poss 547; others 5/6
1300, 455a–j	10									1					1	1	7					SF 455f (Cat 261): 406–23; several ?5/6
1300, 456a–f	6										1				2		3					SF 456c (Cat 340): 450–7
1300, 460a–zz	52						3			3		2		2	19	4	16	2			1	SF 460e & 460ii (Cats 406 & 408): 547
?1300, 461a–pp	42									5	4			1	11	6	1	7				SF 461cc (Cat 387): ?491–98; several: ?5/6
1300, 944a–f	6					1		1		1					2		1					SF 944a (Cat 237): 404–06; SF 944f (Cat 887): ?5/6
1415, 649a–b	2																2					SF 649a–b (Cat 899–900): ?5/6
1415, 668a–e	5										1						4					SF 668a (Cat 695): ?445–527
1415, 671a–b	2												1				1					SF 671b (Cat 418): 597/8–601
1415, 690a–b	2	2									1	1										SF 690a (Cat 399): 533/4
1439, 611a–b	2																2					Both ?5/6
1439, 627a–g	7									1							6					SF 627a (Cat 329): ?425–35; rest ?5/6
1577, 864a–b	2														1		1					SF 864a (Cat 804): ?5/6
1606, 2305a–i	9														1		5	3				?5/6
1606, 2320a–b	2																1				1	SF 2320a (Cat 818): ??5th cent
1963, 2408a–b	2									1					1							SF 2408a (Cat 286): *c.* 410–35
1964, 2420a–b	2														1			1				SF 2420a (Cat 785): ??5th cent
3134, 2673a–b	2									2												SF 2673a (Cat 278): ?423–25; SF 2673b (Cat 295): ??410–35
3257, 2136a–b	2																2					SF 2136a–b (Cat 971–2): ?5/6
4018, 2426a–b	2								1	1												SF 2426a (Cat 285): ?410–35
4056, 2065a–b	2									1						1						SF 2065b (Cat 303): ?425–35
4094, 2694a–b	2																1	1				SF 2694a (Cat 714): 5/6
4094, 2695a–b	2																2					SF 2695a–b (Cat 982–3): ?5/6

Context	Freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4 cent	4/5 cent	5 cent	5/6 cent	4/6 cent	868–1025	1025–1204	Unc	Latest Coin/Comments
4100, 2530a–b	2							1						1								SF 2530a (Cat 134): ?378–88
5019, 2323a–b	2															1	1					SF 2323a (Cat 742): ?5; SF 2323b (Cat 984): ?5/6
5071, 2556a–c	3									1	2											SF 2556a & c (Cat 349 & 351): ??450–7
5074, 2490a–d	4									2					1		1					SF 2490b (Cat 271): ?410–35
5074, 2540a–b	2						1								1							SF 2540b (Cat 567): ?4th /early 5th cent
5133. 2680a–c	3														3							All ?4/5
5199, 2681a–zz	52				1	1	1	1	8	5				3	24	5	3					SF 2681 l–m (Cat 281 & 270): *c.* 410–35; others poss later
5208, 2690a–b	2							1						1								SF 2690a (Cat 116): 380s
5343, 3133a–b	2							1	1													SF 3133a (Cat 217): 388–402
5343, 3140a–c	3														3							All 4/5
5359, 3134a–b	2																		1	1		SF 3134b: 11th cent
5359, 3277a–b	2													1	1							SF 3277a (Cat 575): ?4th / early 5th cent
5364, 3136a–l	12							1				1					10					SF 3136a (Cat 393): ?541/2
5364, 3151, a–k	12								1						7		3				1	SF 3151g–I (Cat 331a & 1020): ?5/6
5369, 3169a–f	6										1				1	1	3					SF 3169a (Cat 360): 457–74; others poss later
5403, 3259, a–n	14								1		3				3		7					SF 3259c (Cat 388): ?491–98
5408, 3145a–b	2							1							1							SF 3145a (Cat 121): 380s; 3145b (Cat 541): ? late 4th / early 5th cent
5409, 3166a–t	20					1									9	1	5	4				Only SF 3166a (Cat 58) dated: 355–61; 5 coins ?5/6
5571, 3254a–d	4					1				1					1		1					SF 3254a (Cat 297): ?*c.* 410–35; 3254c (Cat 1051): ?5/6
?, SF 2129a–b	2									1							1					SF 2129a (Cat 258): 408–23; 2129b (Cat 765): ?5/6
Total	346																					

Table 6.8. Possible hoards from the Triconch Palace with ten or more coins

Context/Small Find nos.	*Number of coins*	*Date range*	*Latest coins*
5199/2681a–zz	52	4th–5th cents (not later?)	410–35 (Cat. nos 270 and 281)
5403/3259a–n	14	4th–5th cents and poss later	?491–8 (Cat. no. 388)
?1300/461a–pp	42	5th cent and poss later	?491–8 (Cat. no. 387); several ?5/6
5364/3136a–l	12	5th/6th cents	?541/2 (Cat. no. 393)*
1300/460a–zz	52	4th–6th cents	547 (Cat. nos. 406 and 408)
1300/450a–j	10	4th–?6th cents	?547 (Cat. no. 409)
1300/449a–n	14	4th–5th/6th cents	?404–6 (Cat no. 242); several ?5/6
1300/456a–f	10	5th–5th/6th cents	406–23 (Cat. no. 261); several ?5/6
5364/3151a–k	14	4th–5th/6th cents	Several ?5/6
5409/3166a–t	20	4th–5th/6th	Several ?5/6

* This coin may be intrusive as the context dates stratigraphically to the mid to late 5th and is cut by an amphora burial dating to about AD 500

the period 474–98 (see above), it shares the *lacuna* for post-reform coins of Anastasius (498–518). This therefore strongly suggests that the *nummus* economy continued to exist at Butrint in the early 6th century. This is also supported by the pattern of deposition described above (Fig. 6.6), in which *nummi* are a continued presence in Phase 7 (early 6th century) contexts.

The majority of the coins from this period are those of Justinian – there are three *folles* and three *half-folles* (nos 391–6) from Thessalonica, Constantinople, Antioch and Carthage. Carthage is also the source for as many as 11 *nummi* which date from the period 533–47 (nos 399–409) when the Byzantine authorities issued these pieces, probably in response to the demands of the local economies of Vandal Africa and Ostrogothic Italy where these coins were still very popular (Reece 2003a, 237). Such coins are also found at Athens (Thompson 1954, 65), Sardis (Buttrey 1981 *et al*, nos 63–71), Beirut (Butcher *et al.* 2003, 246, 268–9) and in Palestine (Moorhead 1983, nos 301–5; Bijovsky 1998, no. 367) and Egypt (Hahn, nos 178–205).

Butcher and others have suggested that there were possibly two different sorts of small change in the 6th century, one of larger Byzantine denominations and the other a hotchpotch of official and unofficial *nummi* from a variety of sources (Butcher *et al.* 2003, 102; Callu 1979, 12–14; Adelson and Kustas 1964, 170–1). At the Triconch it seems that both coins were available, although it is interesting that none of the large denomination pieces of Justinian I was found in the same contexts as his *nummi*. However, across the 6th century, a number of the larger denomination pieces were found in contexts with earlier *nummi*. The differences in relative numbers of *nummi* and larger denomination coins at the Triconch, Corinth, Athens, Sardis and Beirut (Table 6.6) does suggest that we cannot make sweeping statements about the relative supply of these coins in the reign of Justinian I, although differences in excavation techniques may have affected recovery of the smaller denominations at some sites. However, as a proportion of the total number of coins from the sites, the Triconch does have the largest share and it is possible that the close proximity to Carthage and Italy meant that the *nummus* economy was still thriving well into the 6th century.

Analysis of coins based on the latest coin in any given context suggests that there was a significant drop in coin loss in the first half of the 6th century (only 103 coins as opposed to 433 for the period 445–98) (Table 6.3). However, when the coins are analysed by phased context, this indicates that the significant drop in coin loss occurred after the mid-6th century suggesting that the *nummus* was still used in everyday transactions well into the 6th century (Appendix 6.2; Figs 6.4–6.6). The ceramic and stratigraphic evidence also supports this, showing that a significant number of the contexts which have their latest coins from the 5th century (see above) were actually laid down in the first half of the 6th century.

AD 565–602

There are only eight coins from the last period. Seven are *folles* and *half-folles* from Thessalonica, Constantinople and Nicomedia (nos 409–15). There is one *decanummium* of Maurice Tiberius from Rome (no. 416), showing that some coins were still coming to Butrint from Italy. There is a solitary palm-tree *nummus* from Carthage (no. 417), a type originally assigned to Maurice Tiberius and dated to 597/8–600/1 by Wolfgang Hahn (*MIB* II, no. 134), but recently re-dated to *c*. 533–65 in the reign of Justinian I (Bijovsky 2012, 320). This is reinforced by the fact that the Triconch example was found in the same context as another Justinianic *nummus* (no. 402). Therefore, this coin can no longer be used to argue for the issue of *nummi* in the late 6th century. However, it can still be argued that *nummi* continued to circulate until the end of the century. The *half-follis*, possibly from Thessalonica no. (414), was found in the same context as six illegible *nummi*, while the *half-follis* from Constantinople (no. 415) was found in the same context as three illegible *nummi*. Finally, the Rome *decanummium* of Maurice was found with a Justinian I *nummus* (no. 402) and another eight illegible *nummi*. These contexts also suggest that at the end of the 6th-century coins of different denominations were circulating together.

Coin loss comes to an abrupt halt around 600, there being no 7th-century coins of Phocas, Heraclius or Constans II, although four coins of this period are known from elsewhere at Butrint (Cesano 1932, 74; Bowden 2011b, 317; Kamani 2013, 252). At Athens the 7th century is represented by 1127 coins (Thompson 1954, nos 1740a–1826), whilst Corinth has 63 (Edwards 1933, nos 53–74). There are only 12 pieces from Sardis (Buttrey *et al.* 1981, nos 91–102), seven from Kenchreai, the port of Corinth (Hohlfelder 1978, nos 1160–76), and only two from Nemea (Knapp and Mac Isaac 2005, nos 2485–6). The authors of the reports on Kenchreai and Nemea both refer to the Slavic invasions of the 580s when Kenchreai was sacked (Hohlfelder 1978, 4–5) and Nemea apparently suffered as well (Knapp and Mac Isaac 2005, 212, no. 431 note). Furthermore, none of the coins found at Nemea which post-date 588/9 was found in an archaeological context (Knapp and Mac Isaac 2005, 186). It is possible that Butrint suffered a similar fate to Kenchreai and Nemea, the site entering into serious decline from the 580s. It is interesting to note that on the island of Kephalos in the Ambracian Gulf, 27 coins from the first eight years of the reign of Heraclius are recorded (Barla-Pallas 1970, 96–7; Veikou 2012, 250–6). This suggests that coins were still present within the region but in much smaller numbers and with a more restricted circulation.

Possible hoards

In the coin archive a number of coins were recorded together as they were recovered in close proximity to one another and considered by the excavators to be possibly associated (Table 6.7). It is not clear to the author if these constitute hoards or dense concentrations of coins. Given the nature of the archaeological record it is quite likely that many of the coins come from dispersed hoards or purses. Table 6.7 lists 46 contexts from the period prior to *c*. AD 600 which between them include 346 coins.

Of these contexts, 36 contained fewer than 10 coins. The ten larger groups are summarised in Table 6.8. The overall figures might be slightly misleading because only one context (1300) was partially sieved. Some of these groups may constitute hoards or dispersed hoards, and it is possible that when several groups come from the same context (i.e. 1300), they may represent a single assemblage.

These ten groups all have their latest coins from the 5th or 6th centuries. It is possible that they were all deposited in the later 5th or 6th century. Three of them have coins dating from the 540s (5364/3136a–l; 1300/460a–zz; 1300/450a–j) which is when Reece surmised that the *nummus* economy might have begun to wane (Reece 2003a, 238).[2] However, as has been argued, it seems that the *nummus* continued to be used at Butrint until the end of the century so some of these groups might date to later in the 6th century. The existence of earlier, 4th-century, coins in some of the groups is entirely consistent with other hoards like the ones already discussed above: Volo Hoard (Greece) (Adelson and Kustas 1962; RIC X, clxvi–ii); Yale Hoard (Balkans?) (Adelson and Kustas 1960; RIC X, clxix); and the Zacha Hoard (Greece).

Conclusion

Although the coins from the Triconch Palace are very poorly preserved, the numismatic and context analysis does present a relatively coherent picture. In the 4th and early 5th century, Butrint was drawing upon coins from mints to both east and west: Rome and Thessalonica appear to be the major suppliers. Butrint's central Mediterranean situation does seem to be underlined by the paucity of VIRTVS EXERCITI issues in the late 4th century, an issue that was very common to the east of the Aegean. Butrint also seems to receive proportionally more coins from Rome in the early 5th century than Greek sites to the south-east.

In the second half of the 5th century (and even into the 6th century) many of the earlier 4th- and 5th-century coins were still circulating in a currency pool that consisted of predominately eastern *nummi* along with cast coins, possibly from Egypt. This period does appear to have the greatest number of coins and shows how the Triconch Palace was a site securely locked into the *nummus* economy that flourished in the eastern half of the Mediterranean (Moorhead 2012, 621–4; Moorhead 2013; Guest 2012; Bijovsky 2012).

It would seem that the monetary reforms of Anastasius did not seriously dent the circulation of *nummi*. There are a number of large denomination coins from the 6th century, mostly from Constantinople and Thessalonica, but there appears to be a significant influx of *nummi* from Justinian I's mint at Carthage in the 330s and 340s. Contextual evidence suggests that a number of *nummi* were still circulating at the end of the 6th century when the coin record dries up. That there are no coins after 602 might not be a surprise given that they are scarce at other sites in the region. It is possible that the economic activity at Butrint reflected in the coin record at the Triconch Palace was seriously affected by the Slavic invasions of the 580s, which are alleged to have destroyed Nemea and Kenchreai. Whatever the reason, it is clear that from the start of the 7th century Butrint was no longer being supplied with coinage.

Notes

1 Most of the coins from the 1994–96 excavations were stolen during the civil unrest of 1997 and Guest had to identify a number of them from photographs.

2 It is possible that the two Justinianic coins from context 1300 are intrusive.

7 The middle and late Byzantine, medieval and early modern coins

Pagona Papadopoulou

The excavations at the Triconch Palace in Butrint have yielded 92 middle and late Byzantine, medieval and early modern coins dating from the end of the 9th to the 17th century (Cat. nos 1106–97), as well as a hoard of 94 billon coins deposited immediately before or after the year 1200.[1] The earliest among them belong to the Byzantine emperor Basil I (867–86) while the latest are Venetian anonymous copper issues dated to approximately 1519 – *c.*1630. They represent a great diversity of issuing authorities – Byzantine, French, Italian, Frankish, Angevin, Venetian, Ottoman – thus reflecting the turbulent history of Butrint during the Middle Ages (Soustal 2004).

Byzantine coins (9th to 13th century)

The Byzantine coins represent the bulk of the assemblage, with a total of 61 single finds. With the exception of one gold and two silver specimens, they are all base – copper or billon – coins. They will be discussed in two chronological groups, each one representing a different monetary system. A coin hoard of *stamena*, also belonging to this period, will be discussed separately.

9th to 11th century

According to the pattern observed for most Mediterranean sites, the early Byzantine coin sequence is followed by a complete absence of monetary finds (Morrisson 2002, 954–8). In the particular case of the Triconch Palace area, the so-called ‘*grande brèche*’ lasted for two and a half centuries. No monetary finds are recorded between the end of the reign of Maurice (582–602) and the start of that of Basil I, although there is evidence that coin circulation in other parts of Butrint ceased later, under Maurice’s successor, Phocas (602–10) (Spahiu 1979/1980, 383, no. 229; Lako 1981, 127), while a single coin of Heraclius or Constans II was recovered from the Western Defences (Kamani 2013, 252). A further single coin of Constans II was noted by the Italian Mission (Cesano 1932, 74). The coin sequence elsewhere in Butrint (notably on the Vrina Plain) also resumed much earlier, during the reign of Michael II (820–29) (Papadopoulou 2019). The period closes with two signed *folles* of Nicephorus III (1078–81) (Cat. nos 1127–28). No examples of the pre-reform coinage (1081–92) of Alexius I (1081–1118) have been recovered, despite the importance of Butrint and its region during the Norman-Byzantine wars that took place during this period (Soustal 2004, 22; see also below).

Although copper *folles* form the predominant element in the circulating medium of the Middle Byzantine period, the Triconch Palace also yielded three precious metal coins: a gold *tetarteron* of Basil II (976–1025) (Cat. no. 1125) and two silver *miliaresia* of Basil I and John I (969–76) respectively (Cat. nos 1106, 1124).

Miliaresia are not unknown in Butrint. Apart from the two specimens retrieved from the Triconch Palace, a *miliaresion* of Leo VI (886–912) was recovered in the Vrina Plain (Papadopoulou 2019, 40) and another one, of Michael VII (1071–78), was found in the Baptistery area (Guest *et al.* 2004, 304). With the exception of the latter, they all date to a period of revival of the local economy and must be considered in association with this phenomenon. Although the total of four *miliaresia* does not appear an impressive number, in fact it represents an exceptionally large quantity of isolated *miliaresia* from a single site – *miliaresia*, mainly of earlier periods, have been retrieved from other sites, a fact that has been taken as a sign of their common character, but always in smaller quantities than in Butrint (Metcalf 1979, 55; Morrisson 2001, 389, n. 43; Penna 2001, 405). It has been suggested, on the basis of hoard material, that *miliaresia* tend to be found mostly in coastal places actively involved in trade (Touratsoglou 2003, 538). Although they do not form a hoard, the Butrint finds seem to fit this pattern. Moreover, the proximity of Butrint to the Italian south, where *miliaresia* are often mentioned in the sources, but are rarely found in excavations (Martin 1983, 193; Callegher and Morrisson 2008), highlights the sharp contrast in the circulation of this denomination on the two coasts of the Adriatic.

*Table 7.1. Signed and anonymous folles in various sites**

	Signed folles		**Anonymous folles**		**Class A**		**Class B**		**Class C**		**Class I**	
		%		**%**		**%**		**%**		**%**		**%**
Triconch Palace	16	**40**	24	**60**	15	**62**	3	**13**	1	**4**	5	**21**
Albania	38	**29**	92	**71**	38	**41**	13	**14**	12	**13**	22	**24**
Corinth (1896–1929)	1148	**39**	1817	**61**	825	**45**	154	**9**	96	**5**	185	**10**
Athens (1931–49)	913	**30**	2181	**70**	623	**29**	218	**10**	154	**7**	359	**16**

**Albania: Spahiu 1979/1980, 391–7, 409–11. Corinth and Athens: Metcalf 1979, 37, table 3 and 72, table 8*

The gold *tetarteron* of Basil II is of a more exceptional nature, not only because gold coins are rarely found in archaeological contexts, but also because, to the best of this author's knowledge, it is the only gold coin with a certain provenance from southern Albania (for hoards and single finds of gold coins from this period, see Metcalf 1979, 53–4; Touratsoglou 2003, 533–6). It belongs to Class C, issued in 977–86, but represents a variation, since the nimbus of Christ on the obverse is decorated with single and not double dots (Plate. 7.1). The purpose of issuing *tetartera* – that is light-weight gold coins – and their role in the Byzantine economy have long been debated (Morrisson 2002, 930–1 with previous bibliography). However, scholars tend to agree that at least until the mid-11th century they were destined to circulate in peripheral regions of the empire (DOC 3 (Grierson 1973), 39; Hendy 1985, 508, n. 299; Metcalf 1979, 53–4; Touratsoglou 2003, 538). The find from Butrint seems to confirm this view, which is otherwise based on the occurrence of *tetartera* as single finds and hoard material mainly in Dobrugea (Metcalf 1979, 53–4) and a mention of the denomination in a document of 1064 referring to Italy, although by that period the *tetartera* had become quite common everywhere in the empire (DOC 3, 28, 38–9, 52). It seems that the *tetarteron* should also be regarded in the context of the general economic revival characterising the whole Byzantine Empire and Butrint in particular (Morrisson 1992, 298–308).

As already mentioned, the vast majority of this period's coin finds are copper *folles* (89%). They can be divided into two groups: signed *folles* (40%) and anonymous *folles* (60%). With the exception of two specimens of Nicephorus III (1078–81) (Cat. nos 1127–28), the signed *folles* (Fig. 7.1) date to the end of the 9th and the 10th century. A large portion of them (31%) represent overstrikes, as is usually the case with these issues. The very low presence of Leo VI's (886–912) *folles*, one of the most common Byzantine coin issues, is noteworthy (Sear 1987, 331, no. 1729), particularly since this emperor's *folles* represent a significant part of the Byzantine coins found in the Vrina Plain excavations, on the other shore of the Vivari Channel. There they constitute 70% of all the 9th- and 10th-century signed *folles* from the Vrina Plain (Papadopoulou 2012, 313–14; 2019). It seems, however, that activity involving the use of money in the Triconch Palace area was relatively limited until the mid-10th century. It was not until the reign of Constantine VII (920–59) that this apparently changed (Figs 7.1 and 7.2).

The new situation established in the mid-10th century continued well into the next chronological period, represented by the much more numerous anonymous *folles*. As can be seen on Figure 7.3, only four out of the 11 classes of anonymous *folles* are represented in the Triconch Palace – and in the site of Butrint more generally, except for a specimen of Class F found in the Forum area – namely classes A, B, C and I. The most numerous among them by far is Class A, as is often the case at other sites too (Table 7.1). The chronological pattern that emerges is an interesting one: the anonymous *folles* Class A, and to a lesser extent those of Classes B and C, evidence a continuous, albeit dwindling, supply of coins to Butrint until the mid-11th century, similar to that observed for the second half of the 10th century. This is followed by a complete absence of both signed and anonymous *folles* (or any other denomination for that matter). This hiatus in monetary finds is briefly interrupted by a *follis* of Michael VII (1071–78) found in the Triconch Palace in 1994 (Guest *et al.* 2004, 303 = Cat. no. 1126), a set of signed *folles* of Nicephorus III and their almost contemporary anonymous *folles* Class I, only to continue, as will be seen, in the 12th century.

As far as the Class A *folles* are concerned, they can be divided into the three categories established by Metcalf (Metcalf 1970). Class A1 is represented by three specimens (Cat. nos 1129–31) and Class A2 by 11 specimens (Cat. nos 1132–42); one coin can be securely attributed to Class A3 (Cat. no. 1143) and another one could possibly belong to this series judging by its low weight – almost 9 grams (Cat. no. 1144). Several of the unidentifiable Class A *folles* present low weights. It is difficult, however, to attribute them with any degree of certainty to the Class A3 since their weight reduction could be due to wear. Context is not of help in this case, as the anonymous *folles* occur along with coins ranging from late Roman to late Venetian. It is important to note that several specimens from this period – both Class A, as well as other classes of anonymous *folles* – have been heavily worn in a way that betrays prolonged circulation. This phenomenon will be discussed later.

The absence of coins for the period 1050–71 and their sudden reappearance in 1071–81 presents problems of interpretation. This phenomenon is particularly evident

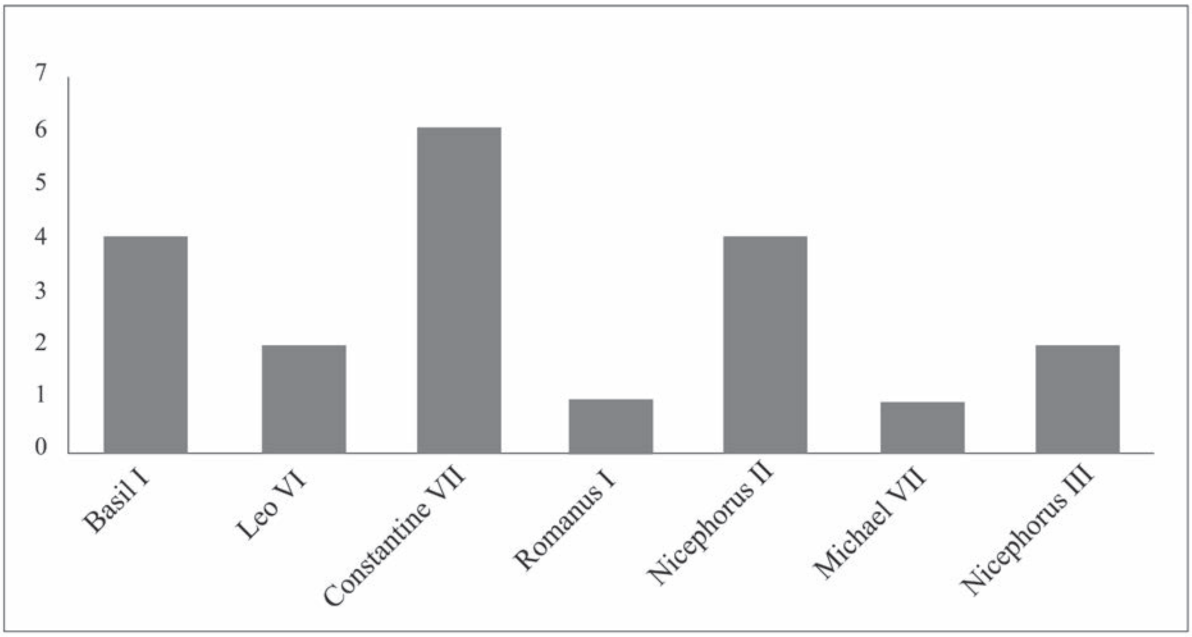


Figure 7.1. Signed folles found in the Triconch Palace

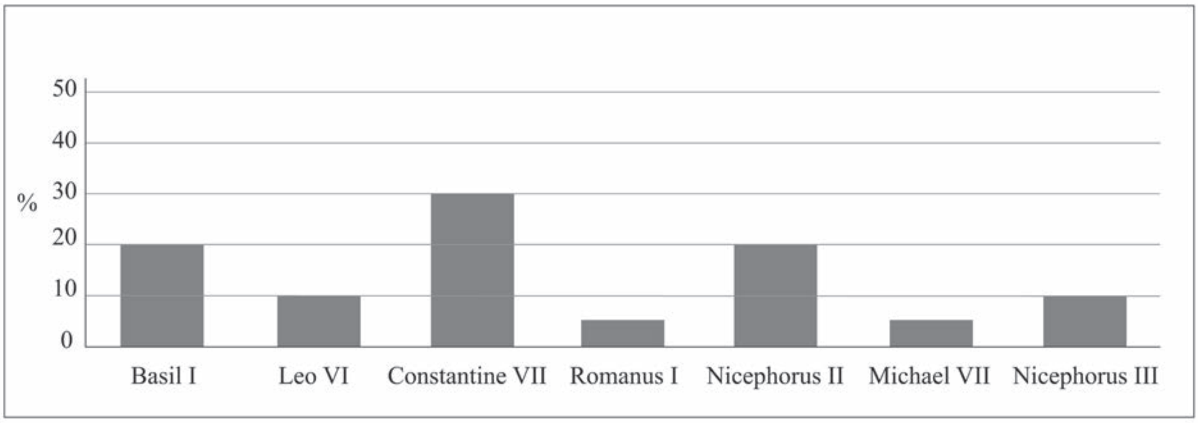


Figure 7.2. Triconch Palace: percentages of signed folles

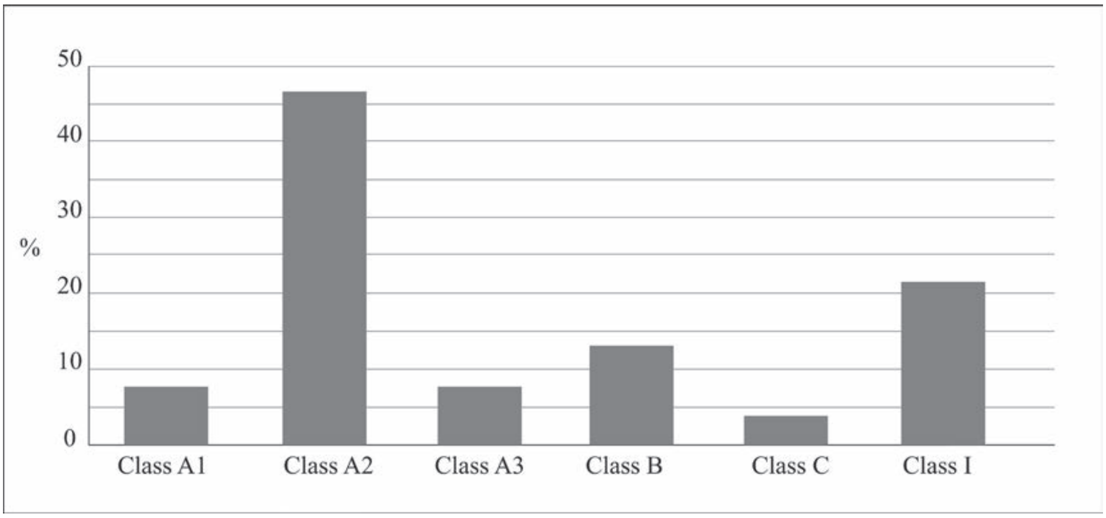


Figure 7.3. Triconch Palace: percentages of the different anonymous folles classes

in the Triconch Palace, since other parts of Butrint have yielded coins of that period: a Class F *follis* (1060–65) was recovered from the Forum area and a *miliaresion* of Michael VII (mentioned above) from the Baptistery. Nevertheless, these finds do not alter the overall picture. A significant reduction in coin finds for the second and third quarters of the 11th century, although much less pronounced than in Butrint, has also been observed in Corinth. In that case, the monetary retraction has been tentatively attributed to changes in the sea-routes following the Byzantine reconquest of Crete, Cilicia and Syria, undermining the commercial role of the city (Metcalf 1979, 71). This interpretation cannot be applied in the case of Butrint, since, on the contrary, one would expect an increase in commercial activity after the stabilisation of the Byzantine possessions in southern Italy. As for the sudden increase in coin losses during the reign of Nicephorus III, shared by Butrint, Corinth and other sites such as Athens and Sparta, it has been interpreted as the aftermath of the monetary reform of 1092, when Nicephorus' signed and the anonymous Class I *folles* would have been repudiated after the introduction into circulation of the reformed coinage of Alexius (Metcalf 1979, 40, 73). Such a practice, however, cannot be attested in Butrint, where, as we will see, Alexius' reformed coinage has a minimal presence in the numismatic material.

Another approach could offer some insight. It has been remarked that Nicephorus' copper coinage was astonishingly numerous for his short reign (DOC 3, 823). On the other hand, Alexius' pre-reform coppers appear, in general, to be quite rare in Albania: only two Class J *folles* have been published from the territory of Albania – one being from Durrës – whereas his Class K and signed *folles* are totally absent (Spahiu 1979/1980, 411, nos 523–24). This picture should not necessarily be held as representative, especially in the absence of publication of the monetary finds of that period from Dyrrhachium (Durrës), the largest and most important city of the Albanian coast.[2] However, the fact that Class I *folles* appear to be numerous in Albania as a whole (Table 7.1 shows 22 Class I *folles* from Albania, five of which come from Durrës), as they are in Butrint, suggests that this picture is at least indicative of a wider pattern in the region. It would then be logical to suggest that the arrival of Nicephorus' coins in Butrint is somehow connected with his successor's military activity against the Normans during the first years of his reign (1081–83) (Savvides 2007, 47–62). The question still remains, however, as to why Alexius did not use his own coinage, at least in the second phase of the Byzantine-Norman wars (1084–85) (Savvides 2007, 63–70). The fact that, with the exception of one specimen of Class J, Alexius' pre-reform coins are also absent from Dyrrhachium, one of the key places of Alexius' defence against the Normans, while four out of the five Class I *folles* with a known provenance (Spahiu 1979/1980, 410–11, nos 511–12, 520, 521–22) and a signed *follis* of Nicephorus III (Spahiu 1979/1980, 397, no. 380) were found in that city, reinforces this view. More material is necessary, however, to confirm this interpretation.

The general picture presented by the numismatic material of the Triconch Palace for the period from the 9th to 11th century is comparable to that of the rest of the Albanian territory, as well as with that of the excavated sites of Corinth and Athens in Greece, at least as far as the issues represented in all sites are concerned. The interpretation of the observed phenomena, however, especially those occurring in the 11th century, is sometimes different due to the special circumstances prevailing in the Illyrian coast.

12th to 13th century

Compared to other excavated Byzantine sites, such as Corinth and Athens, the 12th century is very poorly represented in the numismatic material from the Triconch Palace and from Butrint more generally – although to a lesser extent in the latter case. Only four Byzantine coins found in the Triconch Palace can be dated to that period and they represent chronologically the two ends of the century, since they belong to Alexius I Comnenus and Isaac II Angelus (1185–95) (Cat. nos 1154–57). A further ten Byzantine coins of the 12th century have been retrieved from other parts of the site (Table 7.2 and Fig. 7.4).

Although they cover the whole century, the restricted number of 12th-century coins clearly shows a decrease in the circulating medium in the region during that period (Fig. 7.5). The 2002 Butrint hoard, comprising coins of the end of the century, does not contradict this statement. This phenomenon is closely related to the recovery of worn anonymous *folles*, the presence of non-Byzantine 12th-century coins, and the prevalence of coins of Isaac II in the hoard and will be fully discussed below.

Two other features of the 12th-century circulation are worthy of note. The first concerns the denominations. It is a well-known fact that in the 12th century there were different zones of circulation for the *stamena* and the *tetartera* (Oikonomidou *et al.* 1989, 369–71 with previous bibliography). Southern Albania, along with Greek Epirus (Oikonomidou *et al.* 1992, 105), must have belonged to a mixed zone of circulation where both denominations were used, although the former were clearly prevailing, at least from the reign of John II (1118–43) onwards. Indeed, both the Triconch Palace finds, as well as material found in other parts of the site, show that although Alexius' reign is exclusively represented by *tetartera*, this denomination is subsequently replaced by *stamena*. Butrint shares this predominance of *tetartera* for the reign of Alexius with the rest of the Albanian territory (Spahiu 1979/1980, 398, nos 383–87, 387/1, 395–97, 397/1–2 and 407, nos 487–88) and with Greek Epirus (*cf.* Oikonomidou *et al.*, 107).[3] In the case of Butrint at least, the absence of this emperor's *stamena* cannot be attributed to the effects of Manuel I's (1143–80) devaluation, as in other cases (Hendy 1969, 157–172). Not only are John II's *stamena* present, but, even more importantly, Manuel's non-devaluated issues

Table 7.2. 12th-century coins found in areas of Butrint other than the Triconch Palace

	Emperor	Type	Provenance/Date	Reference – Inventory / SF no
1	Alexius I (1081–1118)	*Tetarteron* DOC 4, 38	Butrint (1975–76)	Lako 1981, 129
2	Alexius I (1081–1118)	*Tetarteron* DOC 4, 40a	Vrina Plain (2008)	Context 03 SF no. 11
3	John II (1118–43)	*Stamenon* DOC 4, 10b	Butrint (1992)	Tirana Numismatic Cabinet Inv. No. 8477 DVI 541/22
4	Manuel I (1143–80)	*Stamenon* DOC 4, 10b	Vrina Plain (2006)	Context 3488 SF no. 6559
5	Manuel I (1143–80)	*Stamenon* DOC 4, 10	Forum (2005)	Context 83 SF no. 76
6	Manuel I (1143–80)	*Stamenon* DOC 4, 13b	Vrina Plain (2005)	Context 3401 SF no. 5101
7	Manuel I (1143–80)	*Stamenon* DOC 4, 13d	Vrina Plain (2007)	Context 7195 SF no. 6396
8	Isaac II (1185–95)	*Stamenon* DOC 4, 3f	Diaporit (2000)	Context 12 SF no. 28
9	Isaac II (1185–95)	*Stamenon* DOC 4, 3	Diaporit (2001)	Context 130 SF no. 124
10	Alexius III (1195–1203)	*Stamenon* DOC 4, 3	Vrina Plain (2006)	Context 3325 SF no. 6037

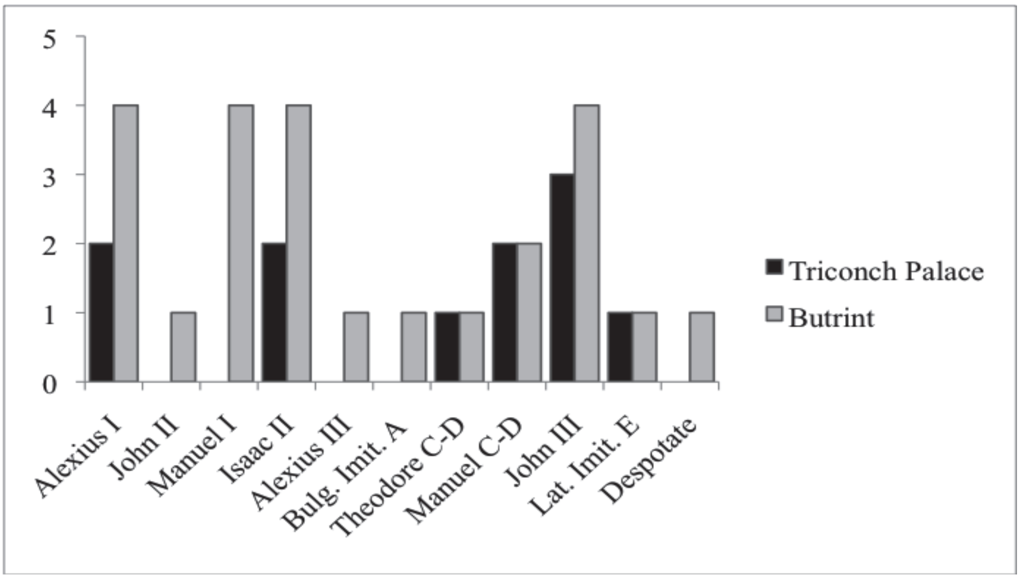


Figure 7.4. Comparative diagram of 12th- and 13th-century Byzantine coins (Triconch Palace – Butrint, including the Triconch Palace)

are represented in equal numbers to his devaluated ones (Table 7.2). The matter merits further investigation, once more information is available.

The second area to consider concerns the relationship of Butrint with the rest of the Illyrian coast. From the surviving numismatic material it is evident that in the 12th century Butrint was not affected by military activity, such as the Norman invasions of 1107–08, 1147–49 and 1185 (Savvides 2007, 71–81; Ducellier 1981, 9–45), or by the commercial activity that takes place throughout the century in the regions to its north. Even though the published numismatic material from other Albanian sites is scanty, it is certain that both factors must have led to a significant increase in the level of monetisation of coastal regions, especially near Dyrrhachium and Aulon (modern Vlora). Butrint, although a coastal site, does not seem to share this pattern.

In the aftermath of the Fourth Crusade (1204), Butrint formed part of the Despotate of Epirus (Soustal 2004, 23). The bulk of the 13th-century Byzantine coins from Butrint have come from the Triconch Palace (Fig. 7.4). Only a few specimens have been retrieved from other parts of the site,

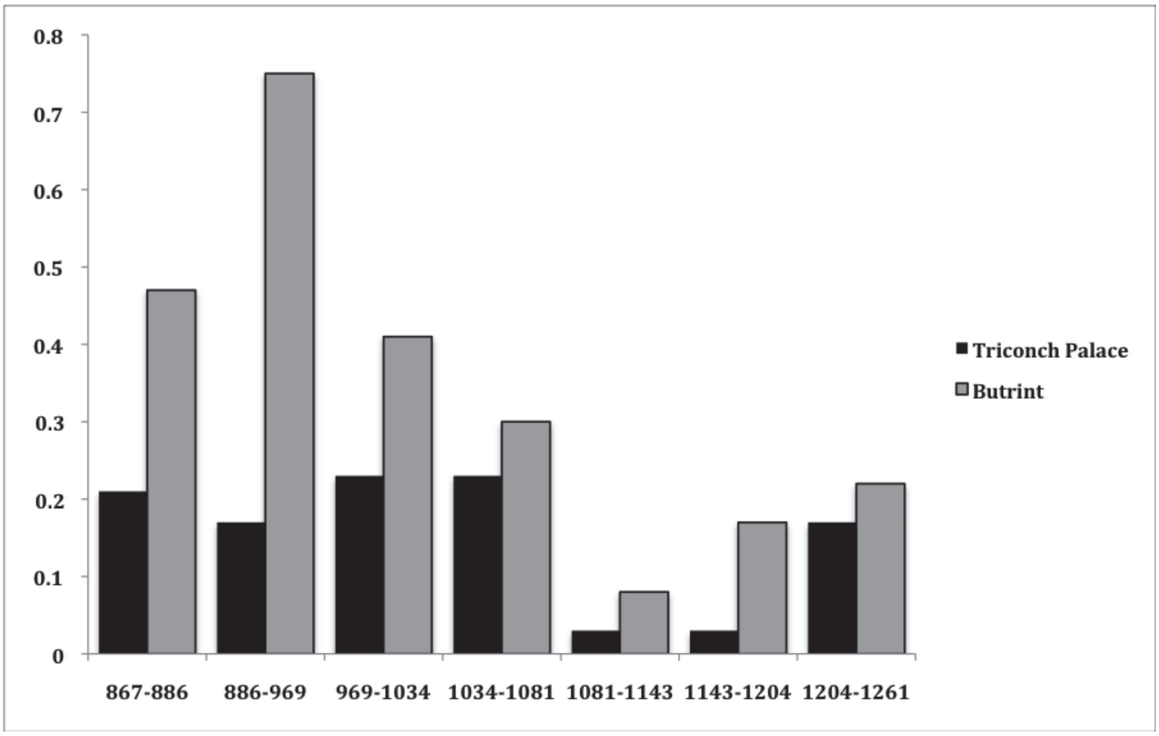


Figure 7.5. Comparative diagram of Byzantine coins (9th–13th century) (Triconch Palace – Butrint, including the Triconch Palace). The vertical axis indicates the annual rate of loss = the number of coins found during each period

a clear indication that this area – possibly along with other, still unexcavated, parts – was the main area of occupation in the time of the Despotate.

The coinage of the Despotate is almost completely absent from the numismatic material of the Triconch Palace, and of Butrint more generally. This is not surprising, since the Despotate minted in very small quantities, mainly for prestige and propaganda purposes (Protonotarios 1983, 99); its coinage is rarely found even in Arta (Oikonomidou *et al.* 1992, 103, 106, 115–16). Only one anonymous *stamenon* found in Butrint in 1993 (Tirana Numismatic Cabinet, Inventory no. 8479) probably belongs to the coinage of the Despotate.[4] The rest of the Byzantine coins of this period are billon *stamena* issued by the Empire of Thessalonica, representing the period from *c.* 1224 to 1254. Their chronological distribution reflects in miniature the picture offered by the numismatic material from Greek Epirus, characterised by the predominance of the Thessalonican issues of Theodore Comnenus Ducas (1215–30) and Manuel Comnenus Ducas (1230–37), and continuation and even increase in the circulation of Thessalonican issues after the integration of the Empire of Thessalonica by Nicaea in 1246. John III Vatatzes' (1222–54) *stamena* minted in Thessalonica are the most numerous in Butrint (Fig. 7.4), as is also the case in Arta (Oikonomidou *et al.* 1992, 102). It is interesting to note that coins of the Empire of Thessalonica and the Despotate of Epirus also found their way to the other shore of the Adriatic; specimens of these coinages were retrieved in the Otranto excavations, although Apulia had long since ceased to be part of the Byzantine world (Travaglini 1992, 261).[5]

As far as imitative coinages are concerned, there is a strong divergence between the Greek parts of the Despotate, where the Latin imitative series and, to a lesser extent, the so-called Bulgarian imitative *stamena* are numerous (Oikonomidou *et al.* 1992, 102–3, 106, 108–9), and its Albanian territories, where these imitative coinages have an extremely limited presence. At present the occurrence of imitative coinages in Albania cannot be fully assessed, since Albanian numismatic and archaeological publications do not address this issue (Papadopoulou 2012).[6] The numismatic evidence from Butrint, however, offers an indication that imitative coinages may not necessarily be under-represented in the published data from Albania since, as far as this author is aware, only two imitative coins have been retrieved from the site of Butrint. The earliest is a so-called Bulgarian imitative Type A (DOC 4, 1) found in 1992 and currently on display in the Butrint Archaeological Museum (Inventory no. 8480, DVI 541/22). The other one is a small module Latin imitative Type E (Cat. no. 1164). This small number attests to the restricted presence of these coinages in the site.

Another three *stamena* which probably date to the 13th century were impossible to identify, although in all cases several elements of the type were visible (Cat. nos 1165–67). It is not impossible that they represent new types, but given their bad condition such a claim cannot be made.

The Thessalonican issues of John III Vatatzes are the last Byzantine coins from the Triconch Palace area. However, the last Byzantine coin from Butrint is a *stamenon* of Michael VIII (1259–82) found to the east of the Baptistery (Guest *et al.* 2004, 304).[7] This is the only Palaiologan coin found in Butrint thus far and its presence must be connected with the last period of Byzantine control in the city (1276–78) (Soustal 2004, 23–4). After that period the main circulating medium in the area is formed by Frankish and Venetian issues.

The Butrint/2002 coin hoard

The 2002 coin hoard, currently on display in the Butrint Archaeological Museum, was found in the Triconch Palace area near the southern city wall (Bowden *et al.* 2011b, 144). No container was found, which leads to the assumption that the coins were either wrapped in a perishable material or were just put in the ground and buried. The hoard was composed of three *stamena* of Manuel I (1143–80) and 91 *stamena* of Isaac II (1185–95). A brief description of its content has already been published (Papadopoulou 2005), but a thorough cleaning of the coins revealed details that allow more precise identifications.

As can be seen in Table 7.3, the earliest coins of the hoard belong to the last two issues of Manuel's reign that, according to Hendy, can be dated to 1160–67 and 1167–80/83 respectively (DOC 4, 287). The rest of the coins belong to Isaac II. Every variety of this emperor's *stamena* is represented in the hoard, with the exception of varieties Aa (DOC 4, 3a) and Ba (DOC 4, 3c) that represent the first issues of the reign (DOC 4, 368). Thus, the hoard must have been deposited towards, or more probably after, the end of Isaac's reign. A connection between the deposition of the hoard and the passage of the fleet of the Fourth Crusade from the Straits of Corfu in May 1203 is not improbable (Soustal and Koder 1981, 179, *s.v.* Kerkyra). In this case, the absence of Alexius III's (1195–1203) coins can be justified by the overall low representation of this emperor's issues in the numismatic material from Butrint (Fig. 7.4). Of course, another, unknown occasion for the deposition of the hoard cannot be excluded.

The composition of the hoard, characterised by the predominance of Isaac's coins parallels the picture obtained from the single finds (Table 7.2 and Fig. 7.4) and testifies to a revival of the local economy towards the end of the 12th century (see below).

Non-Byzantine coins (late 10th to 12th century)

An intriguing aspect of coin circulation in Byzantine Butrint is the presence of several non-Byzantine coins. While the wide use of '*types immobilisés*' on medieval western European coins renders the exact dating of these specimens impossible, they can however be roughly dated in the late 10th to 12th century.

The earliest among them is a *denaro* of Otto III (983–1002) minted in Pavia (Cat. no. 1168) (for a more precise dating of this type in 996–1002, see Saccoci 2001/2002, 170–8). The *ottolini*, as these coins are commonly known, circulated widely in Italy long after their issue and continued to appear in the literary sources until the mid-12th century (Rovelli 1995, 86–9; Matzke 1993). The fact, however, that the Butrint specimen, apart from being broken, seems to have hardly circulated, indicates that its arrival in the Albanian coast must have taken place soon after its issue. It is perhaps interesting to note that it is exactly at that time, at the end of the 10th century, that the *ottolini* first penetrate the southern Italian territory (Travaini 1995 – Apulia: 3, Calabria: 2). Whether this can be interpreted as a sign of closer contacts between the two regions is unclear, but the presence of *ottolini* on both sides of the Adriatic is a positive indication. In any case, the occurrence of a non-Byzantine specimen in the territories of the empire at such an early date is exceptional and can only be paralleled with the hoard found in Shkodra, composed of six coins of Melle and dated to the 10th century (Metcalf 1995, 4).

A later chronological phase is represented by another two Italian *denari* minted in Lucca (Cat. nos 1169–70). According to the chronology established for these coins by Matzke, the Butrint specimens belong to the K.C. and K.E. types and can thus be dated to 1100–30 and *c.* 1150 respectively (Matzke 1993a). The *denari* of Lucca belong to the currencies that Raymond of Aguilers characterised as '*nostra moneta*'; i.e. the coins the first crusaders carried with them into the Holy Land. These mainly consisted of coins of Lucca and Valence which continued to be imported even after a local coinage started being minted at the end of the 11th century (Metcalf 1995, 12–19). Their transfer and use in the crusader Levant has been suggested to account for the presence of the *denari* of Lucca in hoards associated with the first three crusades (Metcalf 1995, 8–11, nos 14, 16, 17). Given that hoard deposits represent very specific phenomena, it is really the isolated finds that are more relevant to the case of Butrint; *denari* of Lucca have been found in Corinth and Thasos in Greece, as well as in Paphos, Cyprus (Papadopoulou 2007, 489–90). It is certainly no coincidence that with the exception of Thasos, the sites that produced *denari* of Lucca are coastal and are on the route to the Levant.

The last coin of this group is from the bishopric of Le Puy in France (Cat. no. 1171). Although the specimen cannot be dated precisely, the pattern of circulation of these coins outside France could offer an indication. French coins, among which are the *deniers* of Le Puy, prevail outside France and in the Levant from the Third Crusade (1189) onwards, thus replacing the dominant Italian and German currencies of previous periods (Metcalf 1995, 175–6). It is thus possible that this coin reached Butrint towards the end of the 12th century.

All this is, of course, tentative in the absence of a more secure dating of these coin types. Given the proximity of Butrint to the Italian coast, the presence of the Italian

Table 7.3. The Butrint/2002 hoard of stamena

	Manuel I Comnenus (1143–80)	
No.	**Variety**	**Weight/Diameter/Axis***
1	Third Coinage (DOC 4, 12)	2.53g/26mm
2	Fourth Coinage Var. Ac (DOC 4, 13c)	3.31g/27mm
3	Fourth Coinage Var. Ba (DOC 4, 13d)	3.98g/29mm
	Isaac II Angelus (1185–95)	
No.	**Variety**	**Weight/Diameter/Axis***
4–19	Var. Ab (DOC 4, 3b)	3.60g/28mm; 2.73g/26mm; 3.51g/26mm; 3.76g/25mm; 2.89g/27mm; 2.79g/24mm; 3.68g/27mm; 3.40g/28mm; 2.58g/25mm; 3.78g/24mm; 3.10g/27mm; 3.52g/27mm; 3.18g/28mm; 3.02g/26mm; 2.80g/25mm; 4.56g/28mm
20–47	Var. Bb (DOC 4, 3d)	3.24g/25mm; 4.38g/25mm; 4.36g/29mm; 3.10g/28mm; 2.77g/27mm; 2.68g/23mm; 2.72g/28mm; 2.09g/23mm; 2.61g/24mm; 3.71g/26mm; 3.48g/28mm; 2.99g/24mm; 2.68g/25mm; 2.07g/24mm; 2.11g/25mm; 4.04g/26mm; 2.44g/26mm; 2.35g/25mm; 2.63g/25mm; 3.57g/25mm; 3.87g/26mm; 2.81g/25mm; 2.45g/25mm; 1.75g/25mm; 3.45g/24mm; 1.90g/22mm; 2.42g/25mm; 2.65g/24mm;
48–53	Var. Ca (DOC 4, 3e)	3.49g/25mm; 2.93g/25mm; 2.92g/25mm; 3.45g/26; 3.14g/26mm; 3.35g/27mm
54–61	Var. Cb (DOC 4, 3f)	1.46g/29mm/7; 3.37g/25mm; 3.37g/24mm; 4.77g/27mm; 3.51g/27mm; 1.92g/26mm; 3.29g/26mm; 2.60g/24mm
62–66	Var. Da (DOC 4, 3g)	3.11g/25m; 2.65g/25mm; 2.10g/26mm; 3.05g/25mm; 2.31g/26mm
67–70	Var. Db (DOC 4, 3h)	2.65g/26mm; 2.00g/24mm; 2.46g/27mm; 3.65g/24mm
71–72	Additional Var. (DOC 4, 3i)	3.05g/25mm; 3.31g/26mm
73–94	Var. ? (DOC 4, 3)	1.86g/25mm; 3.15g/26mm; 3.32g/26mm; 4.52g/27mm; 2.53g/26mm; 3.28g/28mm; 2.20g/24mm; 5.35g/27mm; 3.36/25mm; 2.89g/25mm; 2.88/26mm; 2.89g/27mm; 4.01g/29mm; 3.54g/27mm; 2.48g/25mm; 2.62g/26mm/5; 3.51g/28mm; 3.82g/26mm; 2.87g/22mm; 3.84g/26mm; 2.54g/25mm; 3.17g/24mm

* The die axis is always 6 o'clock, unless otherwise indicated.

coins at least can be attributed to direct relations with the peninsula. Nevertheless, the possibility that these non-Byzantine coins reached Butrint by means of travellers (soldiers, pilgrims or merchants) on their way to the Levant should not be excluded: Butrint's geographical position on the Straits of Corfu qualified it as one of the first ports of call on the sea route from Italy to the East, where all these coin types were circulating. In any case, the early appearance of these coins in the site and their continuous, albeit limited, presence throughout the 12th century, underlines the role of Butrint and of the Illyrian coast more generally as a borderline between the Byzantine Empire and the West.[8]

Frankish deniers tournois *(mid-13th to mid-14th century)*

The second half of the 13th century is marked by a radical change in the circulating medium: Byzantine coins become scarce, as they are replaced by the *deniers tournois*, produced by several of the Frankish rulers of Greece on the prototype of the *denier* of the abbey of St Martin of Tours in France (Metcalf 1995, 252–86). The Triconch Palace yielded eight *deniers tournois*, ranging chronologically from William of la Roche, Duke of Athens (1280–87) or Guy II of la Roche (1287–1308) to John of Orsini, Count of Kephallonia and Despot of Epirus (1323–35) (Cat. nos 1167–73). Most of the specimens belong to Guy II of la Roche and to Philip of Taranto as Despot of Romania (*c.* 1310). The minting period of the first aligns closely to the annexation of Butrint to the Angevin kingdom (1279) (Soustal 2004, 24), whereas the latter became the immediate overlord of a wide region, including Albania and its vicinity (Metcalf 1995, 277). Interestingly, the prolific mint of Clarentza is not represented among the Triconch specimens, but this seems to be a mere coincidence. Single finds and hoard material from south Albania, and especially the evidence of the Shën Dimitri hoard, found near the eponymous church in the vicinity of Butrint, demonstrate that the circulating *deniers* represented a wide range of rulers and mints. The circulation of *deniers tournois* in Butrint ends with the coin of John of Orsini. From the 14th century onwards, the main circulating medium will be provided by Venice.

Venetian, Italian and Ottoman coins (14th to 17th century)

Butrint became Venetian in 1386, but the coinage of the *Serenissima* had started penetrating its territories earlier and continued to form the main circulating medium until the final conquest of Butrint by the Ottomans in the 18th century (Crowson 2007, 13–17, Soustal 2004, 25–6; Hernandez 2018). Although the *grossi* were the first Venetian coins to penetrate the Albanian territory, no such coin was found in Butrint, a fact that should probably be attributed to the high value of this denomination. The earliest Venetian coins found in the Triconch Palace belong to the doge Andrea Contarini (1368–82) and represent two different denominations: the *soldini* and the *torneselli*. The latter were minted specially for the Venetian colonies and eventually drove the *soldini* out of circulation (Stahl 1985; 2000, 60–3). These, however, are not the earliest Venetian coins found in Butrint: a small *torneselli* hoard unearthed in the Forum area also included specimens of Contarini's predecessor, Marco Cornaro (1365–68) (Hernandez 2018).

The coin finds of the later period are particularly interesting for the circulation of the Venetian coinages in the colonies during the 15th and 16th centuries, a topic that still needs to be thoroughly investigated. During the 15th century the (by now extremely devaluated) *soldini* and *torneselli* continue to circulate, as is indicated by two specimens belonging to Francesco Foscari (1423–57) and Cristoforo Moro (1462–71) respectively (Cat. nos 1180, 1176). By the end of the century, they were replaced by a low-value copper denomination: the *bagattino* (Cat. nos 1181–91, except 1184). The anonymous *bagattini*, roughly dated 1519 – *c.* 1630, provided the main circulating medium in the Butrint area for about two centuries. They were the latest coins retrieved from the Triconch Palace, although 17th-century Venetian *soldi* or *gazette* struck for Albania and Dalmatia have been found in the Vrina Plain, in Diaporit and elsewhere (Guest *et al.* 2004, 303).

It is interesting to note the almost complete absence of non-Venetian coins from the numismatic record. This fact underlines the strict control that Venice exercised over the coin circulation of its territories and draws a sharp contrast with the mixed coin circulation evidenced in the Ottoman lands from the end of the 16th century onwards (Pamuk 2000, 62–6, 90–2; Kokkas and Nikolaou 2005, 16). Even so, the Triconch Palace layers yielded two non-Venetian coin finds. The earliest and more interesting is an Ottoman silver *akçe* struck in Konya under Selim I (1512–20) (Cat. no. 1184). Along with an *akçe* of Suleiman the Magnificent (1520–66) found in the Vrina Plain and a second from the Forum area, these coins illustrate the, sometimes temporarily successful, Ottoman efforts to conquer Butrint (Crowson 2007, 39–45; Hernandez 2018). The other non-Venetian coin comes from Gubbio, a city in Umbria, Italy, particularly famous for its *maiolica* lusterware industry that flourished in the first half of the 16th century. The coin in question is a *picciolo* of Francesco Maria I della Rovere (1506–16, 1521–38) (Cat. no. 1183). Given the dating of the coin and despite the absence of this particular *maiolica* type in Butrint, one could associate its arrival in the Illyrian coast with the flourishing lusterware trade of Gubbio, possibly through the intermediary of a Venetian merchant.

Conclusion

The Triconch Palace, with its rich and diverse numismatic material, offers a window into the coin circulation of a town on the southern Illyrian coast revealing the particularities that characterise this geographical area in a given time period.

After the absence of coins for more than two centuries, a monetised economy resumed in the Triconch Palace in the late 9th century and gradually reached its peak in the next century and a half. Despite regional variations this is a phenomenon common to most Byzantine sites. It has been generally attributed to an imperial initiative and possibly to the adoption of fiscal practices which promoted production and exchanges and a development of trade at all levels, in a context of increased security (Morrisson 2002, 958–61). The Triconch Palace seems to reflect this wider phenomenon, although the increase in coin finds is not as marked as that which can observed for Butrint as a whole. Figure 7.4 shows the annual rates of loss for different periods in the Triconch Palace and Butrint as a whole, the latter including also the Triconch Palace finds. The periodisation is that established by Cécile Morrisson (Morrisson 1992, 302–3; Morrisson 2002, fig. 6) and has been followed here in order to facilitate comparisons with other Byzantine sites. Most of the coin finds of the period 886–969 for Butrint come from the Vrina Plain which, as has been noted elsewhere, presents a highly concentrated coin sequence for the 9th and 10th centuries. This concentration of coin finds, along with the rest of the material culture, suggests that the Vrina Plain site was the administrative centre of the area during that period (Papadopoulou 2019; Bowden and Hodges 2012). The reduced role of the area of the earlier walled town at this time could account for the relatively limited finds belonging to this period from the Triconch Palace.

In the next two periods (969–1034 and 1034–81) the Triconch Palace presents a higher loss rate, although for the 11th century this picture is slightly deceptive since, as has already been pointed out, coin finds tend to be concentrated towards the beginning and end of the century.

The sudden drop in coin finds of the period 1081–1143 is a development common to several Byzantine sites (e.g. Aphrodisias, Pergamon, Albania, Athens, Priene, Ephesus, Pernik etc.) that has hitherto received little attention. This indicates that the low loss rate seen at the Triconch Palace (and in Butrint as a whole) is not the result of the vagaries of the archaeological record or variance in recovery. Moreover, despite the difference between the Triconch Palace (where the phenomenon is more pronounced) and other parts of Butrint, the next chronological period (1143–1204) also indicates a relatively low level of monetisation. In a period of devaluation and inflation, during which most Byzantine sites demonstrate a significant increase in coin finds, the loss rates in the site remain modest. Interestingly, it is during that period that the penetration of Western coins must have taken place. The low level of monetisation is particularly surprising in the case of Butrint, given the increased military importance of the Illyrian coast and the Straits of Corfu due to the Norman assaults. It may be, however, that this military activity in the region restricted Butrint's access to its maritime connections.

Little is known about Butrint in this period except for two contradictory testimonies. The Arab geographer al Idrisi (mid-12th century) describes Butrint as 'a small, well populated town with markets' (Jaubert 1840, 121), whereas Roger of Hoveden mentions that in 1191 '*Butentrost*' was a '*castellum dessertum*' (Stubbs 1967, 205; Corner 1983). More information, however, is available for Corfu. In 1081, Bohemond used Butrint as a base for his attacks against Corfu resulting in the occupation of the island. In spring 1084, Corfu was liberated by the Venetian fleet, only to be captured by the Normans in autumn 1084, again using Butrint as their base. The island stayed under Norman rule until the death of Robert Guiscard in 1085. In 1099, Daimbert of Pisa sent his fleet to loot Corfu and two years later the island was taken by the Genoese fleet. In 1105, Bohemond disembarked at Corfu and in 1112 the Venetians tried unsuccessfully to conquer it. Twenty years later, Roger II of Sicily (1130–54) occupied the island for two years, before Manuel I Comnenus (1143–80) took it back in 1149. After that date, Corfu is considered to be Byzantine, but Benjamin of Tudela, who visited the island in 1165, registered it as a Norman possession. In 1185, the Norman king William II (1166–89) handed Corfu over to his admiral Margaritone, whose title '*Rex Epitorarum*' suggests that his authority extended also to parts of Epirus. The island became Byzantine again by 1191 at the latest. In May 1203, as already mentioned, the fleet of the Fourth Crusade crossed the Straits of Corfu on its way to Constantinople (Soustal and Koder 1981, 178–9; Papadopoulou 2005, 1233). Given the westward orientation of Butrint, this suggests that the military vicissitudes of Corfu created instability in the relations and exchanges between the two shores of the Strait, resulting in a lower coin supply in Butrint during that period. The prolonged use of older coins, evidenced in the recovery of heavily worn *folles*, can be interpreted in this context. Unfortunately, information on the monetary circulation in Corfu, necessary to confirm this hypothesis, is entirely lacking.

The situation changed after 1191. The Norman attacks ceased and according to the testimony of a Venetian document of that year, Italian merchants began to favour the maritime route to the East over the land route of the Via Egnatia. This resulted in a radical change in the economic axis of the Illyrian coast, which switched from an east–west orientation to a north–south one (Ducellier 1981, 83–4). This change provides the context for the renewal of coin supply to Butrint, indicated by the arrival of the coins of Isaac II, as well as the penetration of Italian and French issues. The testimony of Roger of Hoveden relating to Butrint in this period is not necessarily contradictory, since the '*castellum*' that he mentions most probably refers to the citadel on top of the hill and not to the settlement by the Vivari Channel, where the coins came from.

The coins recovered from the later medieval and early modern layers of the Triconch Palace reflect the frequent changes of authority, but also the prevailing coinages in the region. Despite their limited number, they offer a clear sequence analogous to that observed in southern Albania (Papadopoulou 2012). The replacement of the Byzantine coins by the Frankish *deniers tournois* that were then succeeded by Venetian issues brought Butrint closer to the territories to its south (Greek Epirus, southern Greece) than to northern Albania (for the circulation of Frankish and Venetian issues in Greek Epirus, see Galani-Krikou 1992).

The numismatic material from the Triconch Palace offers a unique insight to the economic conditions, the level of monetisation, commercial life and everyday transactions of a coastal site for a continuous period ranging from the 9th to the 17th century, thus justifying the characterisation of Butrint as 'a microcosm of Mediterranean history' (Hodges 1995; Hodges *et al.* 1996).

Notes

1 I would like to express my gratitude to Cécile Morrisson and Simon Bendall for their helpful suggestions concerning the Byzantine coins, as well as to Alessia Rovelli and Bruno

Callegher for introducing me to the coinages of medieval Italy. I am also indebted to my colleagues Sam Moorhead, Shpresa Gjongecaj and Richard Abdy for their assistance in various technical matters during our study seasons in Butrint. Coin finds from the Triconch Palace of the 1994–98 seasons, previously published in Guest *et al.* 2004, are incorporated in the graphs and the catalogue, where they are marked with an asterisk. A small number of coins recovered elsewhere in Butrint through chance finds during the excavation seasons are included within the catalogue (Cat. nos 1198–2000). For the present commentary, I have also taken into consideration coins of the period in question found during previous and current excavations in the wider area of Butrint (Spahiu 1979/1980, *passim;* Lako 1981, 122–9; Guest 2004, 300–4), coins kept at the Numismatic Cabinet in Tirana, and coins revealed during excavations in the Vrina Plain, Diaporit and the Forum. For an overview of medieval coin finds in the territory of Albania, see Papadopoulou 2012. As far as Byzantine coin names are concerned, I have followed throughout the terminology used in the DOC 3 and DOC 4, with the exception of the 12th-century billon *trachy,* where I have opted for the term '*stamenon'*, being the term usually used in contemporary documents, rather than the artificial and confusing 'billon *aspron trachy'* of DOC 4. For non-Byzantine coins, the terminology of the standard reference catalogues for these coinages has been adopted. For the comparative numismatic material used in this chapter only publications until 2009 have been considered, when the chapter was written.

2 Hoti and Myrto 1991 only cover the period from 491 to 1025.

3 Only two *stamena* of Alexius I have been found in Albania. They both belong to the same type (DOC 4, 25) and were found in Sarda (modern Shurdhah) (Spahiu 1979/1980, 398, nos 381–82).

4 This type, not included in the DOC 4, was first identified on the basis of two specimens found in Arta. Because of their provenance the coins have been attributed to the Despotate of Epirus and the mint of Arta. (Oikonomidou *et al.* 1992, 104, 115 and 123, no. 8). The Butrint specimen represents a variety of the type of the Arta finds – it has different *signa* on the back of the Virgin's throne. Despite this fact, it seems to confirm the aforementioned attribution.

5 Four coins of the 13th century have been found in Otranto. Their identifications according to the recent bibliography are the following: Travaglini 1992, 261, no. 217: Empire of Thessalonica, *stamenon* of Theodore Comnenus Ducas (1215–30) (DOC 4, 4); Travaglini 1992, 261, no. 218: Empire of Thessalonica, *stamenon* of Manuel Comnenus Ducas (1230–37) (DOC 4, 4); Travaglini 1992, 261, no. 215: Despotate of Epirus, *stamenon* of Michael II Comnenus Ducas (*c.* 1236–68) (DOC 4, 1, under Demetrius Comnenus Ducas of the Empire of Thessalonica; for the correct attribution of the coin to the Despotate of Epirus, see Oikonomidou *et al.* 1992, 104–5); Travaglini 1992, 261, no. 216: Latin imitative of Thessalonica, large module Type A (DOC 4, 24).

6 I was able to identify the following Latin imitative coins in H. Spahiu's article: two large module Type A of Constantinople (DOC 4, 1) – one from Shurdhah and one from Vlora – (Spahiu 1979/1980: 404, nos 453–54); three small module Type A (DOC 4, 30) – one from Shurdhah – (Spahiu 1979/1980: 402, nos 426–28); and possibly one small module Type G (DOC 4, 36) (Spahiu 1979/1980, 401, no. 419). It is more difficult to identify the so-called Bulgarian imitative, since they reproduce faithfully the *stamena* of Manuel I, Isaac II and Alexius III.

7 In the publication, the coin is erroneously attributed to Andronicus II or III. It actually belongs to Michael VIII and the mint of Thessalonica (DOC 5, 188).

8 This conclusion is reinforced by the discovery of a monetiform brooch with the bust of Henry III (1046–56) at the Well of Junia Rufina (Sebastiani *et al*. 2012, 226). These objects, dating probably from the second half of the 11th century, have until now been found only in northern Europe (Sebastiani 2008, 260).

8 The small finds

John Mitchell

Introduction

This chapter describes the small finds recovered from the excavations. They are listed according to material (silver, copper, iron, lead, glass, stone, ceramic and worked bone) and within these groups are broken down into functional categories. Although such divisions are somewhat artificial, it is intended to help the reader use this material for reference purposes. Given the limited number of published late antique small finds assemblages from the Mediterranean, it is hoped that this catalogue will aid the future study of such material.

Within these categories, the material is listed in order of depositional phase. A brief description of the context is given, together with the date of the context. If a separate date can be ascribed to the object (i.e. if it is obviously residual within a later context or of some antiquity when it was deposited) then this is also given within the catalogue entry. If no separate date can be ascribed, objects are dated according to the phase and context in which they were found.

Few small finds were retrieved from contexts dating from the 4th century or earlier, reflecting the relatively limited excavation of deposits of this date. The great majority was found in contexts from the 5th and 6th centuries or in later, medieval or more recent strata. In the case of the finds from later layers, many if not most would appear to have been late antique products which subsequently had been disturbed from their original positions and redeposited.

The almost total absence of small finds pre-dating AD 400 also seems to indicate that for the most part the *domus* was cleared and stripped of its material contents, essentially reduced to a building-yard at the start of the 5th century, during the major campaign of restructuring (Phase 4), which saw the doubling of the size of the peristyle court and the addition of a new aggrandised eastern range, including the triconch *triclinium* (Room 1) and the new entrance vestibule (Room 11) and possible *tablinum* (Room 14), with their imposing columnar articulation. This rebuilding was never completed. The *domus* was abruptly abandoned as an elite residence soon after AD 420, and subsequently appears to have been occupied piecemeal, initially with relatively coherent domestic occupation and later with many of the rooms adapted for small-scale, possibly seasonal, productive activities (Bowden *et al.* 2011d, 96, 105).

Evidence for domestic occupation on the site of the old *domus* is sporadic and scant. The incidence of artefacts found in the various rooms documents use of the buildings that was very different to that of the earlier grandiose phases of the complex. Articles which relate to productive activities were found in conjunction with more domestic objects and items of personal dress and adornment. Although overall assemblages suggest particular activities on the site, most notably fishing and weaving, with the exception of fishing, the evidence for which came almost exclusively from the southern waterside range of the *domus*, the small finds in themselves did not suggest concentration of particular activities in particular rooms or areas in particular chronological phases. However, an increased incidence of artefacts did point to possible higher levels of activity in particular rooms, like the range of items in copper, including two small tools, an animal bell and two hooks (Copper cat. nos 88, 92, 99, 100, 105, 120, 130), in bone, a piece of worked antler (Bone cat. 17), in lead, an amuletic pendant (Lead cat. 1) and in stone, fragments of cornice moulding and marble veneer (Stone cat. nos 62, 72, 91) found in predominantly early 5th- and late 6th-/early 7th-century contexts in Room 29, in the west range. Similarly in Room 23, a varied assemblage was deposited at various levels, for the most part in early to mid-5th–century contexts when the room seems to have been the focus of domestic activity. These included ornate spirally fluted bone gaming pieces (Bone cat. nos 11, 12), a loom weight and two ceramic lamps, one decorated with a simple cross on its base, the other with a more elaborate *chi-rho* (Ceramic cat. nos 14, 21, 22), a copper earring, a bow fibula and a forked rod for net-mending, fragments of copper and lead sheet and strip (Copper cat. nos 2, 80;

Lead cat. 4), and a range of worked stone, fragments from draped statues, architectural fragments and marble veneer and a fragmentary quern stone (Stone cat. nos 1, 2, 14, 53, 68, 75–77).

On the adjacent Merchant's House site, a number of high-status artefacts provide some indication of the character of some of the buildings that developed in the course of the 5th and 6th centuries, in particular the two-storeyed structures, Rooms 40 and 37. To judge from a scatter of fittings and items found in early contexts, these were completed and equipped to an appreciable specification and would appear to have been places of moderately well-appointed occupation.

A general pattern observable in all parts of the complex was for a disparate range of artefacts to be found in a single archaeological context. So 1009, a Phase 2, 4th-century demolition deposit in Room 10, adjoining the triconch *triclinium* to the north, included pieces in a single medium, copper, an earring (Copper cat. 1) and dress-fastener (Copper cat. 45), a small coin weight (Copper cat. 62) and the conical tip of a implement (Copper cat. 85), together with a short section of rectangular-sectioned rod, a copper nail and a copper rivet (Copper cat. 161). Context 5362, a Phase 9 silt horizon in the central courtyard of the peristyle, Room 16, deposited in the course of the second half of the 6th century, contained things in a variety of materials including a crochet hook for fishing-net-work (Copper cat. 68), a simple copper hook (Copper cat. 102), a fragment of copper sheet, a scrap of copper rod, a fine copper rivet and rove (Copper cat. 161), a bone butterfly-shaped belt-mount (Bone cat. 15), and a faux gemstone of green glass (Glass cat. 2). In 4001, a late 6th-/early 7th-century context in Room 43, in the Merchant's House area, the assemblage consisted of a rectangular bone plaque (Bone cat. 16), a delicate little buckle with a plate in the shape of a cross (Copper cat. 39), a fish hook (Copper cat. 77), a short length of copper wire, a fragment of a quernstone (Stone cat. 22) and a fragment of white marble veneer (Stone cat. 92). A similar medley of items was deposited in 1300, a Phase 7, early 6th-century trample layer overlying the mosaic pavement in Room 24, the apsidal *triclinium* in the west range of the peristyle. These comprised a ceramic spindle whorl (Ceramic cat. 3), a small circular copper amulet (Copper cat. 12), an intrusive Byzantine copper *follis* of early 11th-century date, pierced for suspension (Copper cat. 13), a fragment of a copper artefact (Copper cat. 125), a scrap of copper rod, a copper nail (Copper cat. 154), two glass *tesserae* and the head of a glass pin (Glass cat. nos 9 and 1), a small lead nail (Lead cat. 14), a shaped stone artefact (Stone cat. 28), a fragment of porphyry veneer (Stone cat. 82) and a triangular fragment of limestone (Stone cat. 81). In 5006, a collapse or demolition layer of the early to mid-6th century in Room 23, there was an irregular loom-weight (Ceramic cat. 15), a bow fibula (Copper cat. 27) and a forked copper rod for working with fishing nets (Copper cat. 80). Such mixed assemblages give no clear indication of particular activities taking place in particular rooms or areas of the abandoned *domus*.

The evidence for fishing activities is more localised, with finds of fish-hooks and of implements associated with the making and repair of nets, copper crochet hooks, forked rods (Copper cat. nos 72–81) and large needles (Copper cat. nos 82–4), focused in 6th-century contexts in the southern range and courtyard of the *domus* (in Rooms 16, 18, 20, 21 and 23), in close vicinity to the Vivari Channel. Just one stray crochet hook was found outside this area, in a late medieval cultivation soil context in Room 39, in the Merchant's House. Extensive spreads of mussel shells from 6th-century contexts in these rooms provide further clear evidence that the southern rooms of the old house were occupied by fishermen in this period (Bowden *et al.* 2011d, 87–90, 96).

Evidence for the spinning and weaving of thread was more dispersed within the complex. Spindle whorls and loom weights in ceramic and stone were found in a range of contexts, predominantly of the 6th century, in Rooms 16, 19, 23, 24, 25, 37, 38, 39 and 40. However, there was something of a concentration of these in the area of the central courtyard of the peristyle, possibly indicating a focus on spinning and weaving in and around this space (Ceramic cat. nos 4, 6–8, 16 and 18; Stone cat. 4).

Two animal bells from 6th-century contexts in the long gallery (Room 18) and Room 29 in the western range may mean that the *domus* in this period was being used not only for small-scale productive activities but also for the stabling of farmed animals (Copper cat. 98–9) (see also Chapters 3 and 10).

Possibly indicative of the character and use of the spaces in which they were deposited are the finds from the two-storeyed structures in the Merchant's House, Rooms 37 and 40. In Room 37, an elegantly detailed turned ivory object with a little cross at its apex (possibly a gaming piece) was found in context 4018 (Bone cat. 1), an occupation level from the third quarter of the 5th century, and fragments of a magnificent glass dish engraved with a frontal figure under an arcade (4056, SF 2637, Decorated glass cat. 13, see Fig. 9.15) and 15 4th- and 5th-century coins were retrieved from contemporary contexts in the same room. These may indicate high-status occupation of the structure in this 5th-century phase. There is other evidence from the layers associated with the collapse of this house in the late 6th century that this was a residence of some quality, including 11 fragments of Carystian green (*cipollino*) marble veneer (Stone cat. 88), Roman-period *spolia*, which may have found new use in the pavement of the ground-floor room or could possibly have fallen from the upper chamber of this small house (Bowden *et al.* 2011e, 174). Similarly, in Room 40, the two-storeyed building constructed over the footprint of Rooms 43 and 47 in the middle of the 6th century, the debris of the roof which fell in the late 6th/early 7th century contained a rich assemblage of objects. This included an oil lamp, decorated with a large jewelled cross (Ceramic cat. 23), a fragmentary bow fibula (Copper cat. 29), the handle of a large copper vessel in the form of a leaping hound (Copper cat. 57), a large steelyard hook with swan's neck shaft (Copper cat. 103), coins, glass, fineware ceramics from the late 5th and late 6th centuries and a range of utilitarian artefacts. This also may have been a residence of some quality in this period (Bowden *et al.* 2011e, 196–7).

An indicative feature of late Roman society was the recourse by individuals to protective devices of various kinds: figures with acknowledged apotropaic powers, averting imagery on buildings, compositions on articles of dress, written formulae, *voces magicae*, designed to keep evil spirits at bay, engraved gemstones and devices worn about the body as amulets of various kinds. A remarkable assemblage of apotropaic imagery of this kind has been recovered from the spaces of the *domus*. In some cases this formed part of the fabric of the buildings: the tracery of the stone grills which closed the four windows on the façade of the triconch *triclinium*, forming *chi-rho* monograms and six-pointed stars (Stone cat. 37), and the strategic inclusion of variform crosses and a single averting eye in the design of the mosaic pavement of the entrance portico of the peristyle (Mitchell 2011a, 273–6), from the late 4th- and early 5th-century phases of the complex. Another category consisted of small portable amulets, with protective imagery, in copper, lead and bone from across the site (Copper cat. nos 11–15; Lead cat. 1; Bone cat. 3). Four of these were from 5th- and 6th-century levels, and two from much later unstratified contexts, but it is likely that all of them date from the two centuries immediately following the abandonment of the *domus*. Taken together, this assemblage constitutes a vivid indication of some of the strategies adopted by the occupants of the old mansion in an age of rapid social change in which the old Roman patterns of civic infrastructure, amenity and provision were rapidly being eroded (Mitchell 2007).

1. Silver artefacts

Jewellery

Only three artefacts in silver were found during excavation, all hoop-earrings. One, half of a simple silver hoop (cat. 1), was found in a 5th-century flood-wash context in the long gallery (Room 18), and could well have been a possession of one of the occupants in the last phases of the *domus*. Two other hoops (cat. 2 and 3), one complete, the other a fragment, are from a 10th-century grave in the north range of the peristyle (Room 17), in which two children were buried. However, the rings were not found in place by the heads of the deceased. Small differences in dimensions and design indicate that these belong to two different sets, suggesting that the children were female, with rings of the same design in their ears. These rings, articulated with bone/ivory beads separated by short sleeves of fine coiled wire, are of a type little studied, but probably in widespread use in the central Balkans around the turn of the first millennium AD.

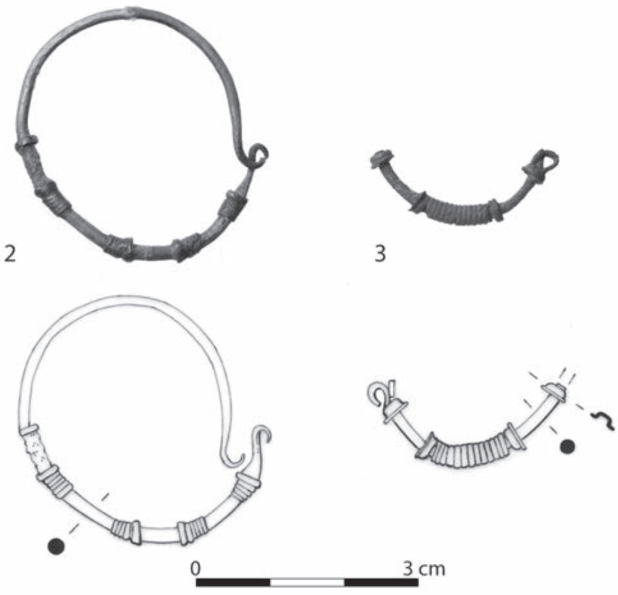


Figure 8.1-1. Two silver hoop earrings from a double child grave (Silver cat. nos 2 and 3)

1). *Fragmentary earring*
Context: 5074. Triconch Room 18 (long gallery). Phase 6: clay-silt deposit possibly resulting from flooding, mid- to late 5th century (with intrusive material).
SF 2405.
Dimensions: diameter: 18 mm; thickness of wire: 2 mm tapering to a point.
Material: silver wire.
Fragment of a small simple earring fashioned from round-sectioned silver wire; half of a ring, broken at one end and tapering to a point at the other. Now in two pieces.
Date: probably 5th century

2). *Hoop earring.* (Fig. 8.1-1)
Context: 1225. Triconch Room 17 (north wing). Phase 12: fill of child grave, early to late 10th century.
SF 498.
Dimensions: a). diameter: 30 × 35 mm; thickness of wire: *c.* 1 mm.
Material: silver.
A simple ring of irregular oval-sectioned silver wire, tapering to each end. At each terminal the wire has been twisted into a little hook. One half of the ring, the display-side, is ornamented with four sleeves of fine coiled silver wire framed by tiny collars, set periodically along the ring. The imprint of a bone or ivory bead can be discerned in one of the interstices between these stops. This shows that originally four such beads were strung on the wire, held in position by the collars and separated by the coiled wire sleeves.

The context in which this earring was found, 1198, was a double grave of two children, of about 5–7 and 4–6 years, one of which (1224) produced a calibrated radiocarbon date of AD 880–1020. The earring is of a type which was widely used in eastern Epirus, modern Macedonia and other regions of the central Balkans in the 10th and 11th centuries. Earrings of the same type have been found in excavations at Rembec (Korce) (Bejko *et al.* 2004, 232–3, pl. IV, 25 & 27), and at Ohrid (now displayed in the Archaeological Museum there).

A copper earring pendant found in a 7th- to 12th-century shell midden in the courtyard of the Merchant's House, Room 39, is from the same general cultural milieu, see Copper cat. 4.

Date: 10th century.

3). *Fragment of hoop earring.* (Fig. 8.1-1)

Context: 1225. Triconch Room 17 (north wing). Phase 12: fill of child grave, early to late 10th century.

SF 499.

Dimensions: preserved length: 22 mm; thickness of wire: *c.* 1 mm.

Material: silver.

A section of another hoop earring of the same type as the preceding item (cat. 2), with one long sleeve of fine coiled silver wire and four stops preserved. At one end the wire terminates in a tiny ring hard against a stop. The length of the wire sleeve and the terminal ring suggests that this is not uniform with cat. 2 but belongs to a different set. The earrings worn by the two children in the grave would appear to have been of the same type but differing slightly in detail.

Date: 10th century.

2. Copper alloy artefacts

The assemblage of copper artefacts from the *domus* and the Merchant's House is particularly extensive, comprising jewellery, earrings, finger-rings, a small but significant group of amuletic pendants, dress fittings of various kinds, brooches and buckles, an indicative trio of domestic paraphernalia (a spindle-whorl, a thimble and a small key), a small group of fine weights, a spindle-whorl and spindle-hooks, implements associated with fishing (fish-hooks and small forked gaffs and possibly large needles for working nets), a range of tools, mostly rudimentary, two animal bells, an assortment of hooks, chains and rings, a considerable assemblage of fragmentary sheets, strips and rods and scraps of wire, a few spikes, a quantity of copper nails and some scraps of waste and debris from copper working. However, there are few significant concentrations of materials, which might indicate particular activities in particular spaces, rather than in general areas and over a number of rooms.

Eight single earrings and one pair were found in all, for the most part simple hoops, probably all late Roman, although the majority was found in late medieval or modern contexts. The early stratified examples included one from a 4th-century context in Room 10, in the north-western corner of the *domus* (cat. 1), another in a 5th-century context in Room 23 (cat. 2), at the western end of the south range, and third in the 6th-/7th-century grave of an infant in Room 38 in the Merchant's House (cat. 3). The one earring of a clear later date, from an early medieval context in the courtyard of the Merchant's House (Room 39, cat. 4), was a delicate elongated globular pendant delicately ornamented with filigree in twisted wire, of a type seemingly in production in the central northern Balkans and Romania in the 10th and 11th centuries.[1]

A small group of amuletic pendants affords some understanding of the personal protective strategies followed by the occupants of the *domus* during the time of its transformation between the early 5th and the 7th centuries. These include an unstratified oval pendant of a common type with a rider spearing a female monster on one side and the much-suffering eye assailed by beasts and weapons on the other (cat. 15), a little circular amulet with the serpent-legged salvific god of light, Iao, from a 6th-century context in Room 24 (cat. 12), a remarkable large pendant which would appear to be a hybrid between an acanthus leaf and a hand, from a 5th-century context in Room 19, at the western end of the south range (cat. 11), and possibly another small disc with a ring of perforations and an incised dove, from Room 14 in the northern range (cat. 14), although this last may have served simply as a token of affection. The value of this assemblage lies in the fact that, unlike the vast majority of amulets from the period, which tend to be unprovenanced stray finds, even though two of the items here were found in unstratified contexts, all can be associated either precisely or more generally with the occupation and fortunes of a particular occupied complex, and can be related to analogous apotropaic features, window-grills and floor-mosaics, which formed part of the fixed fabric of the house. From a later, Byzantine-period occupation of the site are an anonymous *follis* of early 11th century date, pierced for suspension (cat. 13), and a fragmentary crucifix with finely detailed imagery in cast relief (cat. 16).

Finger-rings were recovered for the most part from the courtyard and the south range of the *domus*, with one from Room 39, the courtyard of the Merchant's House. The majority are from 5th- to 6th-century contexts, and the remainder (generally more simple in type) from later medieval or unstratified contexts. The most remarkable assemblage involved a cluster of rings, some fused, some apart, together with an iron strip (Iron cat. 38) and three iron nails, lying on the pelvis of a body in a late 6th- or early 7th-century grave in Room 21. These included one incised with a quadruped, possibly a hare, and one with an indecipherable monogram. A ring cut with a monogram, with Greek letters, was found in a 5th-century context in Room 16 (cat. 17), the central court of the peristyle, while another, engraved with an anchor, a not uncommon motif, was from a 6th-century context in Room 18, the southern long gallery (cat. 19). A third, cut with simple diagonal striations, came from an unstratified non-localised context (cat. 24). The remainder have plain bands, except for a delicate ring fashioned from a barley-sugar twist of fine copper strip with a plate bezel, from a 14th-century cultivation context in the courtyard of the Merchant's House (cat. 23).

The great majority of the brooches are from the 5th to 7th centuries. Six were recovered from the *domus*, four from the Merchant's House. These covered a range of forms. Two fragmentary radiate-headed Slavic-type fibulas, of Werner's types 1a and 1c (cat. 33, 34), are from unstratified contexts in the *domus*, and what may be the detached knob of a composite radiate-headed brooch of more complex construction (cat. 26), is from a 6th-century context in the courtyard of the Merchant's House. Four fragmentary bow fibulae, variants on a simple hooped design, were found in 5th- and 6th-century contexts (cat. nos 25, 27, 29, 30), one in Room 23 at the western end of the south range of the *domus*, one in Room 28, the vestibule to the bath suite, and the other two in the Merchant's House. In addition, there are two brooches recalling those of the so-called Komani culture of early medieval north-western Albania: a small bow brooch decorated with stippling, of a late 6th-century type, from the long gallery (cat. 28) and a fragmentary brooch with characteristic rectangular bow-plate, probably of 7th-/8th-century date, from the subsoil of the long gallery (Room 18) (cat. 32). A tiny annular brooch was found in 14th-century cultivation soil in the courtyard of the Merchant's House (cat. 31).

Similarly, there is a small group of buckles, six from the south and west ranges of the peristyle and one from the Merchant's House. All probably date from the 5th and 6th centuries, when the abandoned *domus* had been subdivided and adapted for a variety of functions, both residential and productive. From Room 18, the south gallery, there is a peculiar double-bowed buckle-like object with what may be a casting sprue issuing from one side, seemingly unfinished, possibly a product of one of the kilns in operation in this room in the later 6th century (cat. 37), and also a fine buckle of the same period, with beaded contour, of a generally Byzantine type in wide use in the eastern Mediterranean and in Italy, here redeposited in a late medieval context (cat. 42). A well-preserved small buckle, with a long strap-plate ornamented with a leaf in delicate punched work carries traces of gilding (cat. 41). The one example from the Merchant's House, from a late 6th- or early 7th-century context in Room 43, is a complete small buckle, with a plate in the form of a cross (cat. 39). This type, with its striking Christian reference, in widespread use across the eastern and central Mediterranean, fastened some article of clothing, possibly about the lower legs or feet.

The excavation produced only two strap-ends. The larger and more elaborate of these is long and highly ornate, cast with lyriform motifs morphing into a beast at the tip (cat. 44). This comes from a 10th- to 12th-century context in the peristyle courtyard, (Room 16), and has analogues in 10th-century metalwork from the Middle Danube. The other is a very simple fitting of plain copper sheet with no decoration (cat. 43).

Other personal ornaments and fittings include two joined hinged strips, incised with a dense design of ring-dots, arcs and little sun-bursts, possibly part of a bracelet, also from the central courtyard of the *domus* (cat. 48), and a butterfly-shaped mount, probably a belt-fitting, from a 5th-century context in Room 22, in the southern range (cat. 46). This last has analogues of the same period in central Europe.

Very few things of an overtly domestic nature were recovered from either of the two sectors, indicating the predominantly subsistence and productive character of occupation in the aftermath of the abandonment of the *domus* as a coherent residential unit. One item which might be considered in this category was a small key, possibly from a casket, found in an early 5th-century context in Room 32, the vestibule to the octagonal chamber in the bath suite (cat. 52).

A number of disparate carefully worked ornate artefacts, all fragments, from various locations in the two sectors include a small fragmentary casting which may possibly be the hoof from an equestrian statuette (cat. 54), a decorative strip from a coffer or some such composite wooden artefact, ornamented with running ring-dots (cat. 56), and a magnificent handle from the lid of a large vessel, in the form of a leaping hunting dog (cat. 57); this last was found together with a range of other artefacts in the debris of a roof collapse in Room 40, a two-storey building in the Merchant's House sector. All three of these are from 6th- or early 7th-century contexts. Fragments of two other attachments from vessels – two delicate foliate suspension-plates with little curling handles – were found, one in a 5th-century context in Room 16 (cat. 55), the peristyle court, the other in an 11th- to 12th-century context in the courtyard of the Merchant's House (cat. 58). A complete example from an earlier excavation at Butrint is preserved in the Archaeological Museum at the site.

Three small, flat square weights of typical early Byzantine type, for weighing precious metals or other high-value substances on a small equal-armed balance, were found in late antique contexts; one from a 4th-century context in Room 10, to the north of the triconch *triclinium* (cat. 62), the others from the Merchant's House, from the courtyard and from the roof-collapse in Room 40 (cat. nos 63–4).

There seems to have been some concentration of implements associated with spinning and the making of cloth in the southern and western ranges of the peristyle and the inner courtyard. Among these were five spindle-hooks and one spindle-whorl, from the court and the southern and western ranges (cat. nos 65–71). Seven of the eight ceramic spindle-whorls and one of stone were found in the southern range (Ceramic cat. nos 3–9, Stone cat. 4) and the greater part of the clay loom-weights from the site were also from the court and adjoining rooms to the south and north (Ceramic cat. nos 11–13, 15, 16, 18 and 20). A bone needle found in a 5th-century context in the west portico of the peristyle and a bone spindle-whorl from Room 22, to the south, point in the same direction (Bone cat. nos 4 and 6). Spinning and the weaving of cloth would seem to have been one of the activities here in the 5th and 6th centuries.

To judge from the large quantities of shells found during excavation, fishing and fish-processing were major activities of the occupants of the two sectors in the post-abandonment phases. A few fishhooks were found in both areas, two from the long gallery (Room 18), one from Room 21 and two in or near the apsidal reception hall, Room 24, and two more in the Merchant's House, Rooms 41 and 43, all in 6th-century contexts (cat. nos 72–8). Furthermore, implements which can be associated with the making and mending of nets were also found in these areas, three netting shuttles with bifurcated terminals, from 6th-century contexts in the courtyard and southern range of the *domus* (cat. nos 79–81). Three large copper needles (cat. nos 82–4) and an iron needle from Room 17 (Iron cat. 11) may also have been used in this activity.

A small number of other tools were recovered from various areas of the two sectors (cat. nos 85–96), including four with cutting edges and what may be a punch. Two types of special purpose tools, both of uncertain function, feature in the assemblage. One of these is represented by two small hollow cones of copper sheet, designed to serve as the terminals of wooden shafts or handles (cat. nos 85, 88), the other by three little triangular scoops or paddles, originally secured by a rivet to a slender wooden shaft (cat. nos 90, 91 and 94). An interesting find, from a 5th-century context in Room 26, in the west range of the peristyle, was a small round copper pan, with flat bottom and slightly splayed sides, possibly designed for some productive purpose (cat. 97).

Two animal bells from 6th-century contexts in the long gallery (Room 18) and Room 29 in the western range, seem to indicate that the *domus* in this period was being used not only for small-scale productive activities but also possibly for the stabling of farmed animals (cat. nos 98–9) (see also Chapters 3 and 10).

Hooks of various sizes and dimensions were found throughout the site (cat. nos 100–08). Prominent among these are two large hooks with striking swan's-neck upper suspension loops from steelyard balances, from 5th- and 6th-century contexts in Room 29 in the *domus*, and in the roof-collapse in Room 40 in the Merchant's House sector (cat. nos 100 and 103). These have an exact analogy in a hook found during excavation of a 6th-century warehouse at the port of Classe, by Ravenna, on the upper Adriatic.

A few fragments of light chains, some probably from lamps, were found in late antique levels and one redeposited later context in both sectors (cat. nos 109–13), as well as numbers of rings (cat. nos 114–19) and small pierced discs of various kinds (cat. nos 120–4). An assemblage of miscellaneous, largely unidentifiable, fragmentary artefacts was also found across the site (cat. nos 125–36).

A lone architectural fitting from the pre-abandonment residential phase of the *domus*, a clamp for securing marble veneer, was recovered from a late 3rd- or 4th-century demolition context in Room 17, the long room in the north range of the peristyle (cat. 137).

Fragments of copper sheets, strips, rods and wire were found in considerable quantities in both sectors. These included a number of composite pieces, the remnants of complex artefacts fashioned of a number of sheets riveted together (cat. nos 138–43), and two small fragments decorated with complex stippled designs, one from the courtyard of the peristyle, the other from Room 37 in the Merchant's House, both probably of 6th-century date (cat. nos 144–5). Small concentrations of sheet fragments in Room 16, the peristyle courtyard, Room 18 and other rooms in the southern range of the *domus*, as well as Room 39, the courtyard of the Merchant's House, may indicate the activity of copper-smiths in the late antique, post-abandonment phases of the *domus* and the neighbouring site. A similar small concentration of copper strips is to be noted from the courtyard of the Merchant's House (see Table 10.3).

Some 40 copper spikes and nails were recovered over both sectors of the site, in no particular concentrations (cat. nos 149–59) (see www.iadb.co.uk/butrint for the full catalogue). The use of copper nails, resistant to saline corrosion, may indicate work on the fabric of boats, although the absence of particular concentrations might suggest repair rather than construction.

Modest quantities of copper lumps and of production waste point to the working of copper on the site in the period following the abandonment of the *domus* as an elite residential unit (see Chapter 5; Table 5.2: Copper Production Debris, in this volume). This is also indicated by the presence of a fragment of a stone crucible with residues of copper alloy and the negative impression of a rod on its interior surface in an early to mid-6th-century context in the courtyard of the Merchant's House (Room 39) (Stone cat. 30). However, in the absence of any concentrations of this material, it is not possible to locate this activity with any precision or, with the exception of one lump of poured copper alloy, to connect it with any of the kilns and hearths found in 5th- and 6th-century contexts in Rooms 18, 22, 24, 26, (Bowden *et al.* 2011d, 96–105).

Jewellery and dress fittings

EARRINGS

1). *Fragment of earring*
Context: 1009. Triconch Room 10 (to north of *triclinium*). Phase 2, demolition deposit, 4th century.
SF 93285.
Dimensions: length: 12 mm; thickness of wire: 1.5 mm.
Material: copper alloy wire.
A small section of a simple hoop of copper wire. Probably the remains of an earring. Found in association with a shaft of a nail (SF 63, see full archived catalogue).
Date: 4th century or earlier.

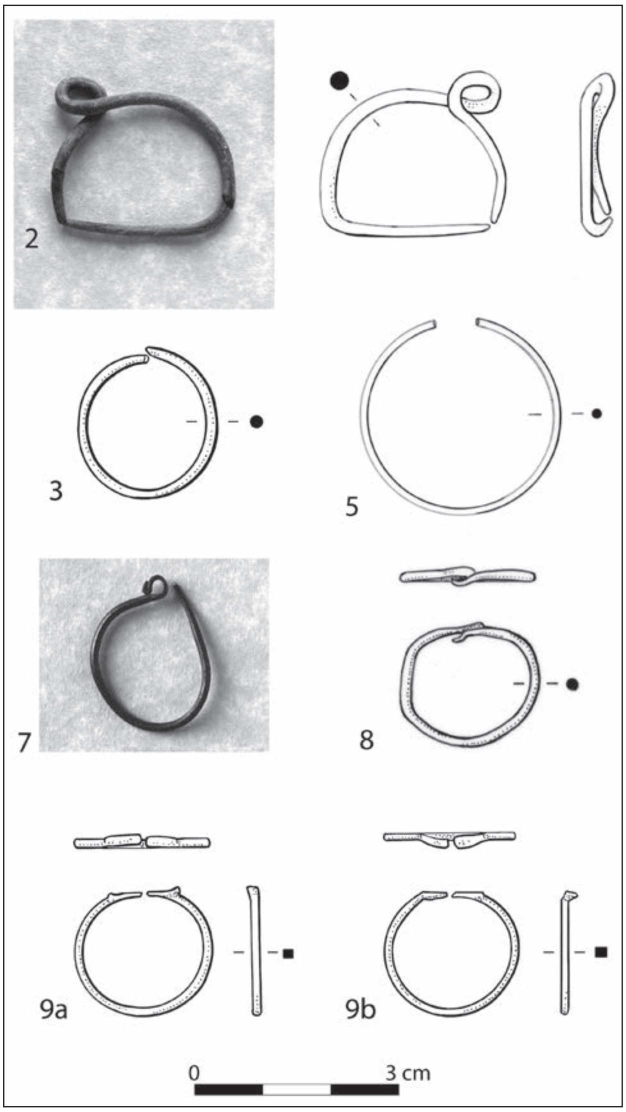


Figure 8.2-1. Copper alloy hoop earrings (Cu alloy cat. nos 2, 3, 5, 7, 8 and 9)

2). *Earring* (Fig. 8.2-1)
Context: 1515. Triconch Room 23. Phase 6: mortar bedding for floor, mid- to late 5th century.
SF 742.
Dimensions: diameter: 26–23 mm; thickness of wire: 1–1.75 mm.
Material: copper alloy wire.
A simple ring of round-sectioned copper wire, tapering to each end. The wire has been twisted to form a small loop at one point along the ring, probably for the suspension of a small ornamental element. The ends of the wire meet. The ring had been broken since excavation and repaired.
Date: probably 5th century.

3). *Earring* (Fig. 8.2-1)
Context: 4151. Merchant's House Room 38. Phases 8–10: tile-grave of an infant, 6th to 7th century.
SF 2646.
Dimensions: diameter: 23.5–20 mm; thickness of wire: 1–1.5 mm.
Material: copper alloy.
A simple delicate open ring of round-sectioned copper wire, the ends just overlapping. Found by the head, by the right ear, of an infant under 1 year old. Found in association with a small section of iron bar (Iron cat. 39).
Date: 6th to 7th century.

4). *Pendant from an earring* (Fig. 8.2-2)
Context: 3020. Merchant's House Room 39 (courtyard). Phases 11–13a: shell-midden over Merchant's House courtyard, 7th to 12th century.
SF 2042.
Dimensions: height: 28 mm; diameter: 6–8 mm.
Material: copper alloy.
A delicate composite pendant ornament from an earring. A courgette-shaped pendant, with a spherical knop at its upper end and swelling towards its domical lower end. The pendant is constructed of three elements, knob, body and terminal hemisphere, held together by an axial wire stem, which forms a loop for suspension at the top, and a little securing nipple at the bottom. The sides of the body are decorated with filigree decoration in fine twisted wire, forming pendulant looped flute-like sections.

In form, construction and decoration, this pendant is uniform with a class of earrings known from excavations in eastern Albania, and other regions in the central northern Balkans, Macedonia and Romania. Closely related examples have been found (unpublished), together with other items of jewellery in similar technique, at Rembec (Korce) and Rehovë, in south eastern Albania (Bejko *et al.* 2004, pl. IV; Aliu 1986), while others are on display in the archaeological museum at Ohrid. These have been dated to the 10th/11th century. Earrings with pendants of analogous form have been found at Trpieva Crkva, near Vil. Dunje, Maiovo, Macedonia, 10th to 11th century (Kepeska 1995, figs 4 and 5), at Cumbrud, Roumania, 10th century (Ferenezi 1960, 244; Ferenezi and Dankanits 1962, fig. 4, 12; Cultura Byzantina 1971, 141, cat. 132), and at Dolni Lykovit in north-western Bulgaria, 9th to 11th century (Rapports 1980). Finger-rings with filigree ornament in similar configurations have been found at Rehovë, in south-eastern Albania (Aliu 1986), and in Kosovo, dated to the 10th to 11th century (Tacic 1998, cat. nos 354–5). For an earring from the same period and milieu, see Silver cat. 2.
Date: 10th to 11th century.

5). *Earring* (Fig. 8.2-1)
Context: 5301. Triconch Room 16 (courtyard). Phases 12–13: demolition deposit, 10th to 12th century.
SF 3006.
Dimensions: diameter: 30 mm; thickness of wire: 1 mm.
Material: copper alloy.
A simple delicate open hoop earring of round-sectioned copper wire. The ends do not meet now.
Date: probably 4th to 7th century.

6). *Earring*
Context: 3076. Merchant's House Room 39 (courtyard). Phase 14a: cultivation soil, 13th to 14th century.
SF 2034.
Dimensions: 35 × 21 mm (presented distorted condition); thickness of wire: *c*. 1 mm.
Material: copper alloy wire.
A simple hoop of round-sectioned copper wire, tapering to each end. The hoop is now twisted and distorted.
Date: 13th to 14th century or earlier; uncertain but probably 5th to 7th century.

7). *Earring* (Fig. 8.2-1)
Context: 2056. Merchant's House (adjacent to city wall). Phases 14–15: topsoil.
SF 1171.
Dimensions: diameter: 22–17 mm; thickness of wire: *c*. 1 mm.
Material: copper alloy.
A well-preserved simple delicate open ring of round-sectioned copper wire. One end of the circling wire is curled back into an S to form an eye to catch the other terminal, which tapers to a point.
Earrings of this design have been found in the cemeteries at Shurdhah and Lezhë in north-western Albania, and have been dated to the later 8th century (Nallbani 2002, 282, cat. 470-3, pl. 58).
Date: uncertain; probably 6th to 8th century.

8). *Earring* (Fig. 8.2-1)
Context: 1114. Triconch Room 16. Phase 15: unstratified topsoil.
SF 998.
Dimensions: diameter: 22–18 mm; thickness of wire: *c*. 1 mm.
Material: copper alloy.
A simple delicate open ring of round-sectioned copper wire, the ends overlapping.
Date: uncertain, probably 4th to 7th century.

9a). and b). *Pair of earrings* (Fig. 8.2-1)
Context: 5017. Room 18 (long gallery). Phase 15: unstratified topsoil.
SF 2382.
Dimensions: diameter: 21 mm; thickness of wire: 1–2 mm.
Material: copper alloy wire.
Two uniform hoops of fine round-sectioned copper wire; the ends of both are just apart. The two rings are of exactly the same dimensions.
Date: uncertain, probably 4th to 7th century.

NECKLACE-CATCH (OR FORE-EDGE CLASP FROM A BOOK)

10). *Necklace-catch or fore-edge clap from a book?* (Fig. 8.2-3)
Context: unstratified. Spoilheap find, from uncertain location on the site of the *domus*.

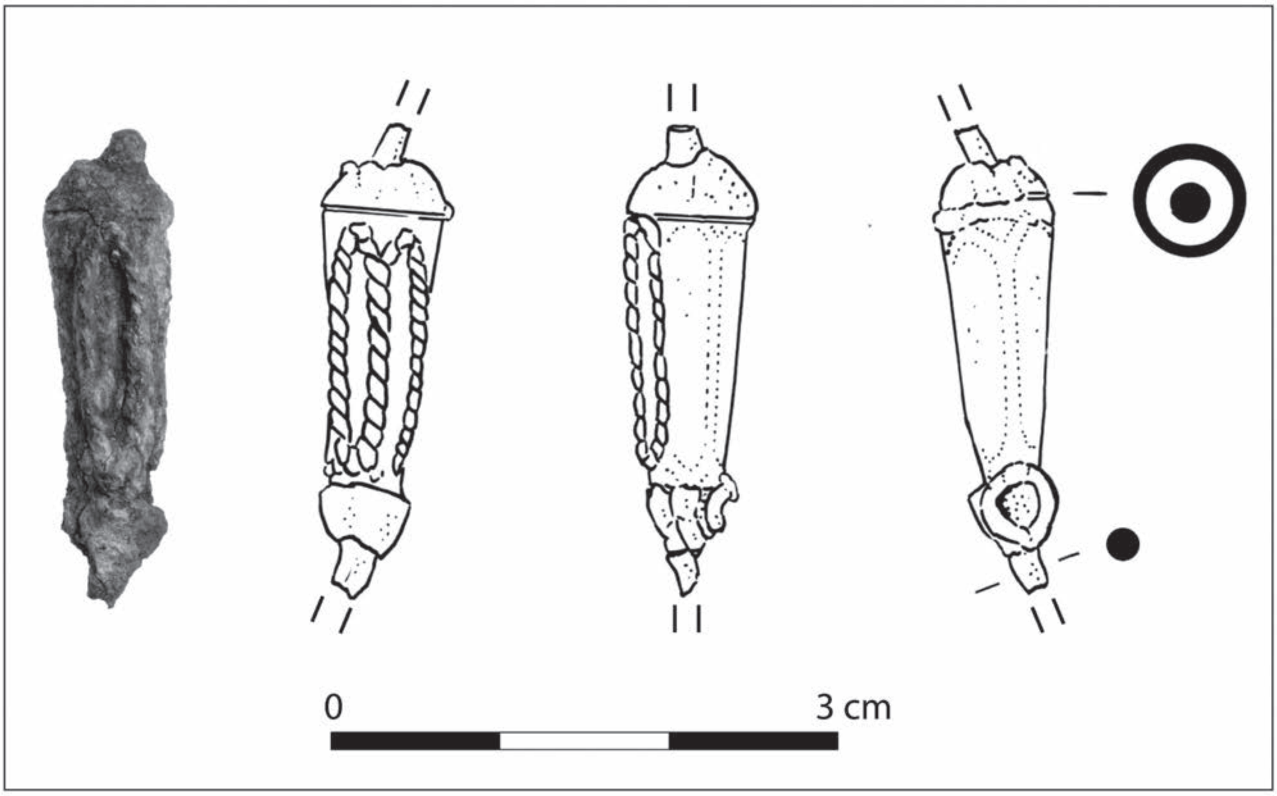


Figure 8.2-2. Copper alloy pendant from an earring (Cu alloy cat. no. 4)

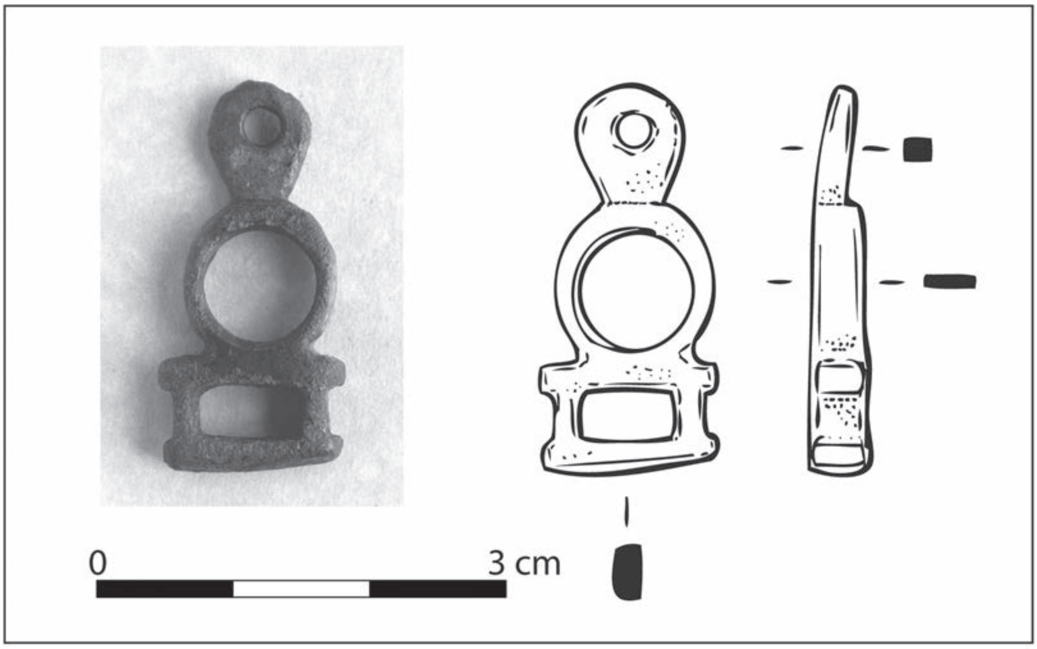


Figure 8.2-3. Copper alloy necklace-catch (Cu alloy cat. no. 10)

SF 1999.
Dimensions: length: 29 mm; max width: 13 mm; thickness: 3.5 and 2 mm.
Material: copper alloy.
Small cast copper fitting with 8 × 4 mm rectangular opening for a thin strap, then a 9 mm circular perforation, followed by a tiny 3 mm circular perforation. Fittings of this kind are not uncommon and have been identified both as buckles (Davidson 1952, 267–8, 272, cat. 2197–2201, pl. 114), as necklace-catches (Ricci 2001, 358, cat. II.4.442–3) and as clasps from the fore-edge fastenings of books (Mitchell 2011b, 203–4, cat. 1.13). In the latter case, the larger circular opening would have been designed to pass over a little knob projecting from the fore-edge of the cover of a manuscript-book, to hold the covers tight closed. One example of this type of fitting has been found in a 7th-century burial at Castel Trosino (Mengarelli 1902: col. 248, fig. 110); another at Saraçhane in Istanbul (Harrison 1986, 266, cat. 579, pl. 408), five at Corinth (Davidson 1952, cat. 2197–2201, pl. 114) and three from a 9th-century context at the early medieval monastery at Nonantola, where they are identified as book-clasps (Gelichi *et al*., 302–-4, tav. 2). Another from the vicinity of metal-working workshops at the monastery of San Vincenzo al Volturno, although found in a late topsoil deposit, is likely to date from the 9th century, to the time at which the monastic workshops were in full production (Mitchell 2011b, 203–4, cat. 1.13).
Date: uncertain, probably 6th to 9th century.

PENDANTS AND AMULETS

11). *Pendant in the form of an acanthus leaf* (Fig. 8.2-4)
Context: 5635. Triconch Room 19 (south wing). Phase 6: clay floor, mid- to late 5th century.
SF 3289.
Dimensions: length: 79 mm; width: 63 mm, thickness: 5.5 mm.
Material: copper alloy
A large and heavy copper pendant in the form of an acanthus leaf with deep indentations culminating in open rounded perforations. At the base there is a 6.5 × 4.5 mm sub-square perforation for suspension. The central stem of the leaf projects and is formed somewhat like the middle finger of a hand (or even a phallus); in fact there is something hand-like about the formation of the whole leaf. The formation may reference the *digitus infamis*, the hand-gesture of fist with extended middle finger (Jahn 1855, 80–2; Kötting 1934, col. 479; Kuhnert 1909, col. 2010). It is possible that the pendant is a transformative cross between leaf and hand, designed as an amulet to safeguard and empower the user. It is unclear how this was designed to be used – possibly for suspension from the harness of a horse.

Exuberant leafage, acanthus, vine, ivy and other species, were commonly accorded empowering and salutary symbolic virtues and protective values in the late Roman world, whether in the form of a tree, plant or leaf accompanying a figure set on salvation or an enabling psychopomp (Bonner 1950, 259, n. 40, pl. II; 269, n. 101, pl. V; Michel 2001a, 25–7, n. 40–2; 39, n. 59–60, pl. 114, n. 180; 168, n. 273; 299, n. 487, 343 n. 597; Mitchell 2006, 270–6, figs 9–10; Mitchell 2007, 300–2, figs 14–15), a prominent leafy plant associated with other apotropaic devices on an amulet (Mitchell 2012, 61, 65, fig. 1), the substitution of a skirt of acanthus for the tunic of a high-ranking field-officer (headless basalt cuirassed statue in the garden of the National Museum of Damascus), or the association of a vine leaf or a luxuriant vine trail with the victory-bringing, fertility promoting, healing knot of Hercules (on cornices embellishing a temple at Palmyra

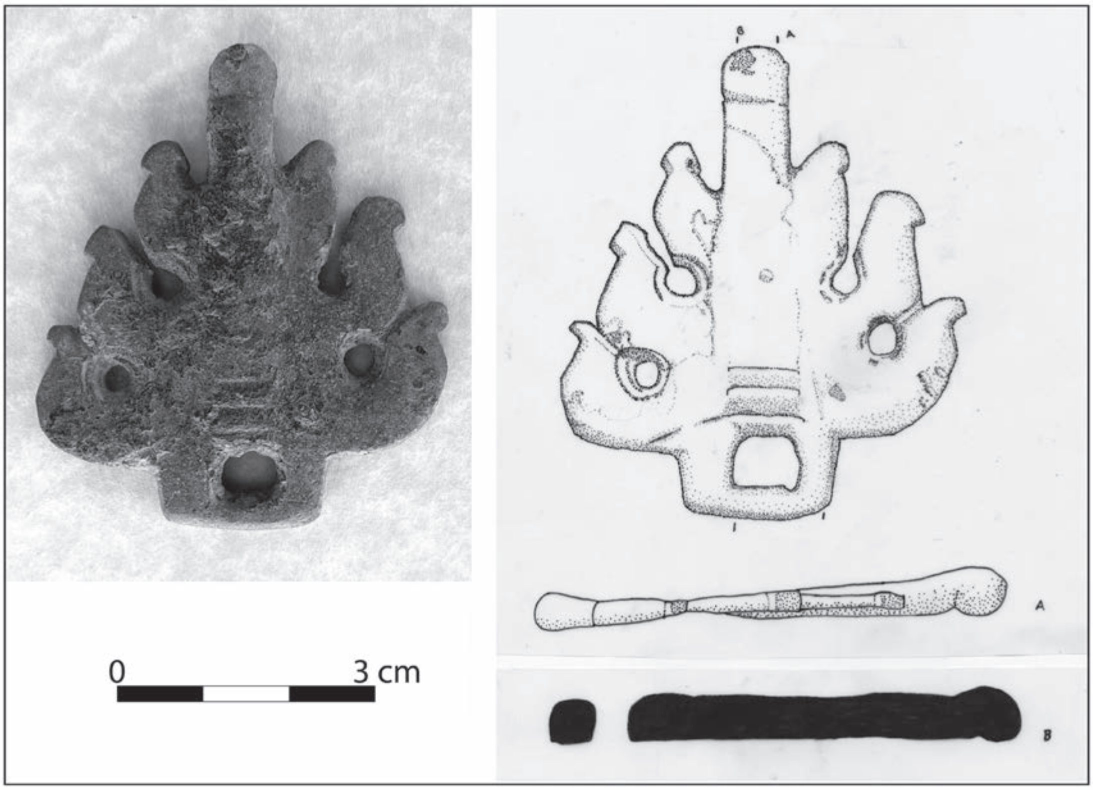


Figure 8.2-4. Copper alloy pendant in the form of an acanthus leaf (Cu alloy cat. no. 11)

and on the keystone of the apse of the early 6th-century basalt-built cathedral at Bosra). A leaf like this one, deeply indented and configured in bold symmetry, possibly cheiromorphic and with the ghost of a phallic spine may have been designed to draw together a range of valences to enhance its amuletic potency.
Date: 5th century

12). *Small circular amulet* (Fig. 8.2-5)
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF 1157.
Dimensions: diameter: 21–22 mm; suspension loop: 12 × 4.5 mm; thickness of disc: *c*. 1 mm.
Material: copper alloy.
Small circular pendant, with loop for suspension. On one face is represented the frontal image of an anguiped, serpent-legged creature holding out what looks like a shield in its left hand and some implement in its right. This seems to be a somewhat debased image of the great all-powerful god of light, Iao, a manifestation of the Jewish God Jahweh, associated with Abrasax, one of the most popular *voces magicae* of the late antique world and Lord of the year and time. Iao is commonly represented on amuletic gemstones with cock's head, soldier's body and serpents for legs, brandishing a whip in his right hand and a round shield in his left. For Iao/Abrasax, see: Bonner 1950, 123–39, pls VII–IX; Nilsson 1951; Goodenough 1951; Barb 1957; Post 1979; Brashear 1995, 3577. For gemstones with images of

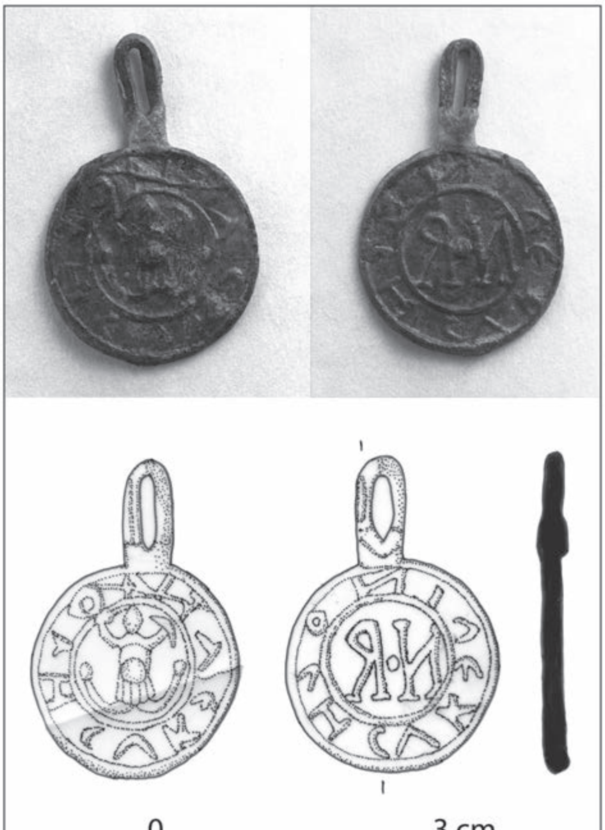


Figure 8.2-5. Copper alloy pendant (Cu alloy cat. no. 12)

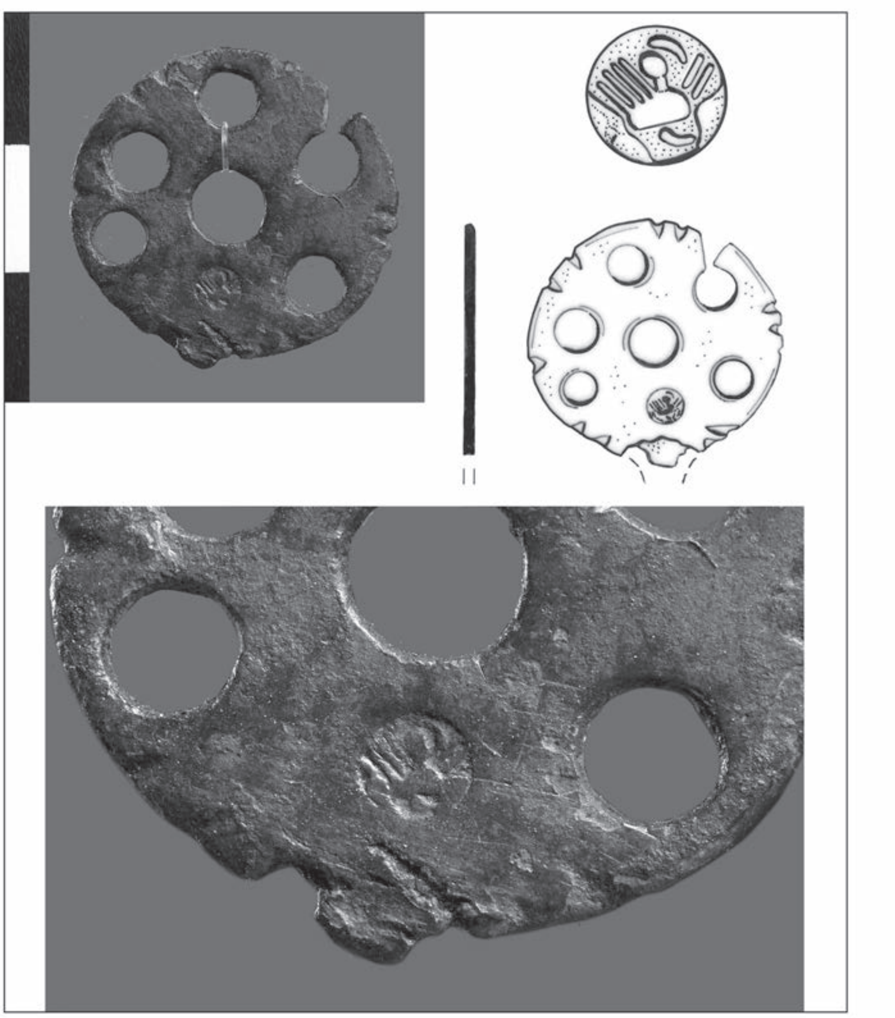


Figure 8.2-6. Small circular copper alloy pendant (Cu alloy cat. no. 14)

this divinity, see: Delatte and Derchain 1964; Philipp 1986; Michel 2001a, nos 181–242; Michel 2001b.

On the other face of the disc are what appear to be the letters NR in reverse, separated by a median point. Both sides carry inscriptions on their rims, the same sequence of characters repeated on both faces; these have yet to be deciphered. Clockwise from the suspension loop: N (reversed on NR face), E on Iao face/I on NR face, V/lambda, uncial E, K, V/lambda, C, H, Y on Iao face/V on NR face, O.

This, then, is a pendant carrying an image of an all-powerful divinity, a much-favoured figure on gemstones in the late imperial period. The legends on both faces may be intentionally nonsensical combinations of characters designed to confuse threatening demonic powers. It is not clear whether amulets of this kind were thought to embody healing powers relating to a particular category of medical condition, as was the case with certain other types (Vikan 1984), or whether they were seen as being generally efficacious in putting the wearer under the protection of the all-powerful cosmic deity and ensnaring evil spirits with irresolvable magic formulas.

Date: early 6th century.
Bibliography: Mitchell 2007, 291, fig. 10b.

13). *Coin pierced for suspension*
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century. SF 989.
Dimensions: diameter: *c*. 30 mm; thickness: *c*. 2 mm.
Material: copper alloy.
A very corroded Byzantine anonymous *follis* of AD 976–1030/5. On one side, faint traces of the haloed head of Christ are preserved. All traces of the letters of the lines of legend on the reverse have been obliterated. The coin has been pierced, on the right-hand side of the head of Christ, for suspension; this suspension hole is now broken and open. This type dates from the early 11th century (see Chapter 7 in this volume, no. 1139).
Date: early 11th century (intrusive).

14). *Small circular pendant* (Fig. 8.2-6)
Context: 1114. Triconch Room 14 (north wing). Phase 15: unstratified topsoil.

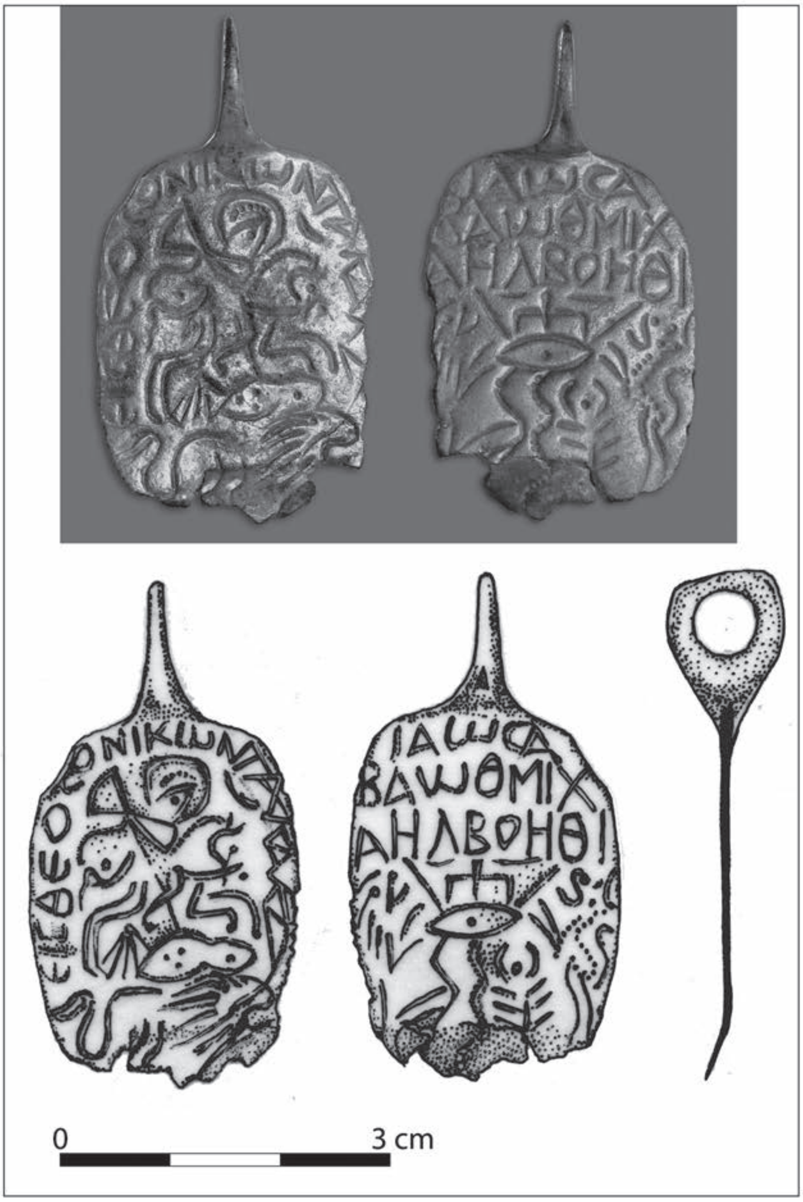


Figure 8.2-7. Small oval amulet with rider and much-suffering eye (Cu alloy cat. no. 15)

SF 494.
Dimensions: diameter: 25–26 mm; thickness of disc: *c.* 1 mm.
Material: copper alloy.
A small copper disc with six round perforations. One of these, fractionally larger than the others, is set at the centre, and is surrounded by the other five. In place of a sixth radial perforation, there is a shallow circular impression bearing the tiny stamped image of a bird, possibly a dove, shown frontally with open wings. The bird stands with its head towards the centre of the disc, and its feet to the edge. One or two little nicks between each of the perforations embellish the outer contour. The largest of the outer perforations is broken open to the outer edge. On the circumference, next to the bird, the stump of a loop for suspension is preserved. The surface of the display face is smoothly finished, but the rear surface is lightly scored, possibly to ensure the adhesion of a backplate of a different material in a contrasting colour.

The object would appear to be a small pendant to be hung at the neck. The perforations may be designed to show as a circling chain of round accents against a contrasting underlying material; and the bird is positioned to be viewed by the wearer, rather than by a second party. The pendant could be purely ornamental, but the presence of the bird suggests that it may have carried a symbolic meaning, possibly soteriological, possibly tokening affection.
Date: uncertain, probably 4th to 5th century?

15). *Small oval amulet with rider and much-suffering eye* (Fig. 8.2-7)

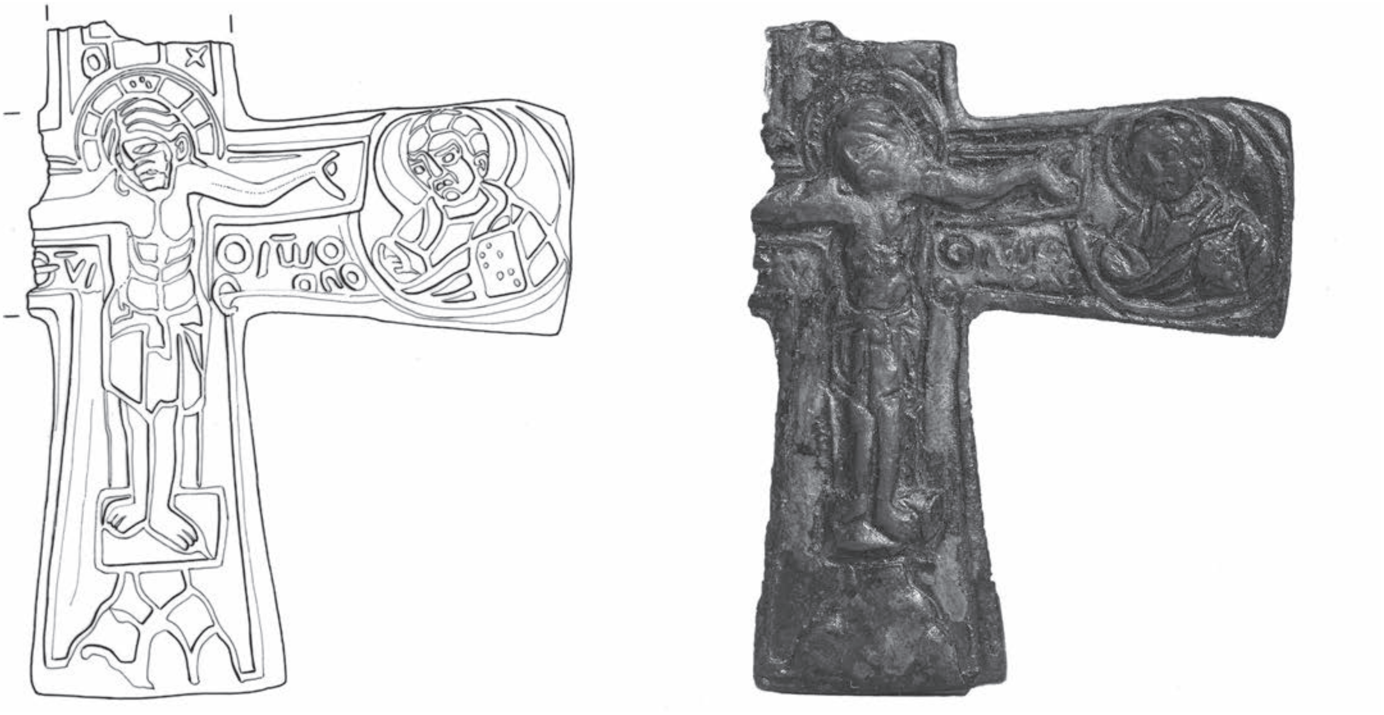


Figure 8.2-8. Small fragmentary pendant crucifix (Cu alloy cat. no. 16)

Context: 1114. Triconch Room 24 (reception room). Phase 15, unstratified topsoil.
SF 556.
Dimensions: overall height: 43 mm; height of display surface: 32 mm; width: 24 mm; thickness: less than 0.5 mm.
Material: copper alloy.
An oval amulet with integral suspension loop, incised with imagery on both faces. On one side is a powerful horseman with haloed head and flying cloak who lances an indistinctly delineated prone figure, while an accompanying lion bounds along below. The legend, as is usual on amulets of this type, reads: 'εις θεος ο νικων τα κακα': 'One god who conquers evil'. The image on the other face of the pendant shows the much-suffering eye assailed by spears and a trident from above, and by an array of aggressive creatures, a lion and a leopard at either side, and a serpent, a scorpion and an ibis beneath. At the top is inscribed the powerful formula 'Ιαω Σαβαωθ Μιχαηλ βοηθι': 'Iao/Jawe, Lord of Hosts, Michael, help/protect', calling on a popular trinity of protective powers of Jewish association.

The holy rider can be identified with Solomon, the master of demons, who with the seal-ring he had received from the angel Michael was empowered to control and bind all evil spirits. The indistinct creature he lances is the female monster of many cultures and names, Lilith, Alabasdria, Gyllou, Abyzou, who according to the Testament of Solomon, a popular magical treatise of the period, visited women in childbed and sought to strangle their children at birth; for amulets with this imagery, see: Perdrizet 1922; Bonner 1950, 208–12, pls XIV–XV, nos 298–303; Engemann 1975, 25, 37–40; Russell 1982, 137, figs 44–5; Vikan 1984, 79–80; Russell 1995, 40–1; Walter 2000a; 2000b. For Lilith/Alabasdria/Gyllou/Abyzou, see Vikan 1984, 79; Dautermann Maguire *et al.* 1989, 25–8). The much-suffering eye was the antidote prescribed in the Testament of Solomon to nullify the effects of the Evil Eye, the look of envy, commonly identified as *phthonos***,** the bewitching glance feared by all, which could kill domestic animals, destroy crops, make women barren, kill children, and destroy fortune, possessions and health (18.39: Duling 1983, 981; Russell 1995, 37). Its power was negated by the forces arrayed against it on the amulet (for this imagery, see McCown 1922, 58; Perdrizet 1922, 27–32; Bonner 1950, 208–12; Engemann 1975, 37–40; Dautermann Maguire *et al.* 1989, 4–5, 216).

Copper two-sided amulets of this type are not uncommon and are thought to have been worn by women to guard against mishap in childbirth and possibly by children for their own well-being (Bonner 1950; Vikan 1984; Dautermann Maguire *et al.* 1989, 26–8. On uterine magic and amulets, see also Aubert 1989, esp. 441–8). Examples are usually dated rather indiscriminately to the 4th to 7th century (Dautermann Maguire *et al.* 1989, 216), 5th to 6th century (Michel 2001a, 280–2), and 6th to 7th century (Ćurčić and St. Clair 1986, 81). An example was found at Anemurium in an early 7th-century context (Russell 1995, 39–40, 46, 79).
Date: probably 5th to 7th century,
Bibliography: Mitchell 2007, 289–91, fig. 10a.

16). *Small fragmentary pendant crucifix* (Fig. 8.2-8)
Context: 1114. Triconch Room 35 (area between bathhouse and reception room). Phase 15: unstratified topsoil.
SF 892.

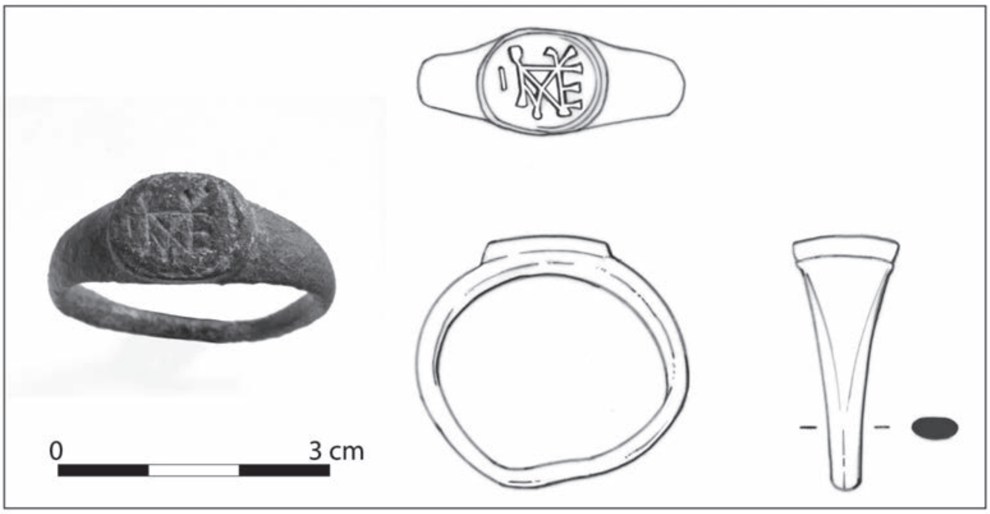


Figure 8.2-9. Finger-ring with monogram (Cu alloy cat. no. 17)

Dimensions: preserved height: 48 mm; preserved width: 48 mm; thickness: 3 mm; length of right arm: 22 mm; length of lower arm: 26 mm. Overall height when complete: probably just under 70 mm.
Material: copper alloy.
A fragmentary crucifix missing the upper and left-hand arms of the cross.
The crucifix has been cast with the figure of Christ crucified on a cross which stands on a low hillock of rocks. Christ is represented hanging on the cross, with his preserved left arm slightly bent at the elbow and hand in open profile. He is bearded, has his eyes closed and his head is inclined down to the left. He has a cruciform halo, with roundels in the intervals between the little cross-arms. He wears a full loin-cloth which extends down to his knees, bunched and tucked at the waist. He stands on a rectangular *suppedaneum*, a foot-board, shown in inverse foreshortening. At the end of the right-hand arm of the cross is the half-figure of St. John, in a summarily indicated circular frame. John is shown facing in towards Christ, in half-profile, clean-shaven, haloed, head slightly inclined, his right arm caught in the sling of his pallium, with his right hand raised in a gesture of speech, a large book in his left. A number of words are incorporated into the image: above Christ's head, to the left: c with a contraction line above (σωτηρ – saviour), to the right X (Χριστος – Christ); just below the left arm of the cross on which Christ hangs: θν with contraction line above (θεου – of God) – the titulus should be completed with a preceding μητηρ – mother of God; below the right-hand arm of the cross: ο A Iω ο θεοΛο with the A within the initial O, and contraction lines above the ω and the final ο (ο Α(γιος) Ιω(αννες) ο θεολο(γος) – St. John the Theologian).
The figure of Christ is powerfully modelled with sure and deep cuts in the wax transferred to the bronze casting. The reverse is smoothly worked with no trace of any projecting element for attachment.

This little bronze crucifix was probably designed as an encolpion to be worn as a pendant on the breast – provided with a loop on the missing upper arm of the cross for suspension. However, this is not a pectoral reliquary cross of the type in widespread use in Byzantine cultural sphere between the 9th and the 12th century. These are typically constructed as hollow vessels to contain relics, with two faces hinged together, each carrying imagery, in cast relief or engraved: normally Christ crucified flanked by small images of Mary and John in full figure at the ends of the lateral arms, on one face, and on the other the Mother of God, with clipeate portraits of the four evangelists on the four arms (Pitarakis 2006). The obverse of the fragment from Butrint is plain and smoothly finished. It must have served as a straightforward pectoral, a profession of faith and a safeguard from evil and ambient danger. The manner in which Christ is represented, a powerful, somewhat stocky figure, with eyes closed and head inclined in death, with short beard, prominent curving nose, slanting eyes, hair sloping down across his forehead, long loin-cloth, is characteristic of Byzantine representations of Christ of the 10th/11th century.
Date: probably later 10th to early 11th century.

FINGER-RINGS

17). *Finger-ring with monogram* (Fig. 8.2-9)
Context: 5357. Triconch Room 16 (courtyard). Phase 6: silt horizon in southern portico, mid to late 5th century.
SF 3237.
Dimensions: diameter of band: 25–27 mm; bezel: 13 × 10.5 mm.
Material: copper alloy.
A copper band widening at one side to support a raised oval bezel. The bezel is cut with a monogram within a simple linear frame, incorporating the Greek letters: Π, N, M, A, E, O,and V – ΠANEMOY? In addition there is a short vertical stroke incised on the shoulder of the ring, just to the left of the monogram.
Date: probably 5th century.

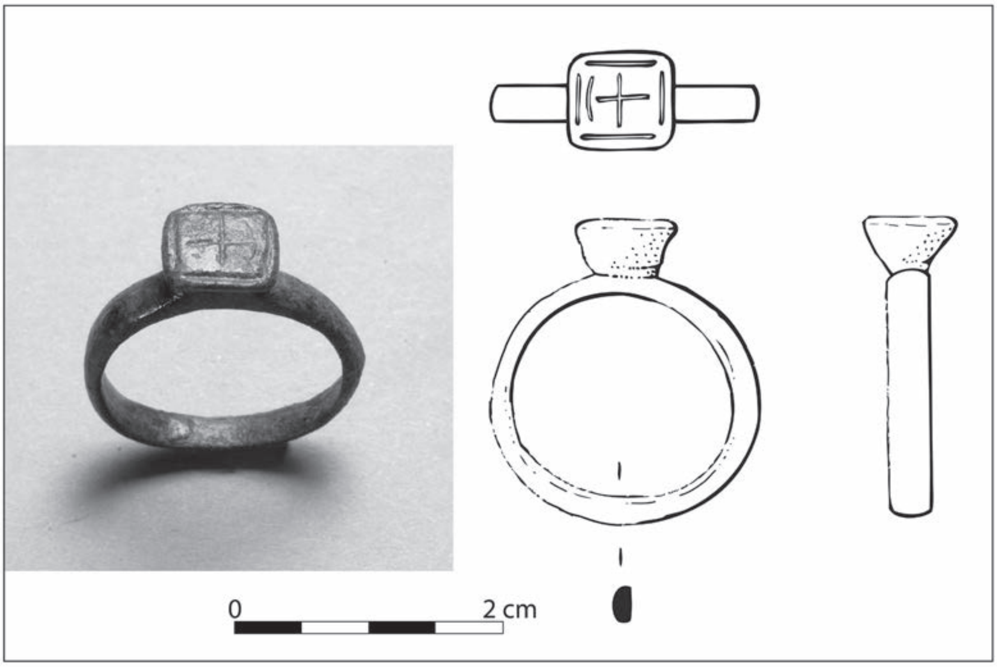


Figure 8.2-10. Finger-ring with anchor on bezel (Cu alloy cat. no. 19)

18). *Finger-ring?*
Context: 1438. Triconch Room 24 (reception room). Phase 7?: layer over mosaic, early 6th century.
SF 680.
Dimensions: diameter of band: 12 mm; thickness of wire: *c*. 1.5 mm.
Material: copper alloy.
A small open copper hoop; possibly a finger-ring for a small child. The ends do not quite meet. Possible thickening for bezel at one point.
Date: probably early 6th century.

19). *Finger-ring with anchor on bezel* (Fig. 8.2-10)
Context: 5057. Triconch Room 18 (long gallery). Phase 9: dump of rubble and domestic refuse, mid- to late 6th century.
SF 2398.
Dimensions: diameter of ring: 20 mm; bezel: 7 × 7 mm.
Material: copper alloy.
A copper band with a bezel in the form of an inverted truncated pyramid. The face of the bezel is gently convex and is lightly incised with a cross/anchor (an anchor with the bar set at the mid-point of the shank). The cruciform anchor was a soteriological and apotropaic device, combining the cross with the old symbol for hope, widely used in Christian communities in the late Roman world. For similar rings engraved with cruciform anchors, see Dalton 1912 (4, n. 22, and 5 n. 23), Deloche 1900 (82–3, n. lxxii), Baldini Lippolis 1999 (209, no. 2.vii.3. 3a. 15, from Su Bruncu e S'Olia, prov. Cagliari, Sardinia). The *locus classicus* for the anchor as a Christian symbol for hope in salvation is St. Paul *Hebrews* 6.19.
Date: probably 6th century.
Bibliography: Mitchell 2007, 294, fig. 11c.

20). *Assemblage of finger-rings in fused clusters and single items*
Context: 1428. Room 21. Phase 10: grave fill of an infant burial (deposited by the pelvis of the skeleton, on the left side of the figure), late 6th to 7th century.
SF 581.
Dimensions: overall: 30 × 29 × 19 mm and 38 × 37 × 14–15 mm.
Material: copper alloy and iron.
This assemblage was found in association with an iron strip (Iron cat. 38).

a). Three iron rings, fused together by corrosion (Fig. 8.2-11).
Dimensions overall: 30 × 29 × 19 mm.
Material: iron
Two of the rings in this group are closed, one is now open. One is plain, with an unevenly worked hoop, widening at the head into a 'bezel' (diameter: 22 mm; width of band: 3.5 mm, thickness: *c*. 1 mm thickness of bezel: *c*. 5.5 mm) The ring with a now-open hoop has ragged ends, a present diameter of 26 mm, an uneven band 4.5–5 mm wide and 1–2 mm thick. The third iron ring has a diameter of 22 mm, width of band: *c*. 2.5 mm, thickness: 1–2 mm, and a small crescent setting soldered to the outside of the hoop, a little askew, possibly the remains of the setting for a small stone. Again the hoop is somewhat uneven and hammer marks are visible on its surface. There are small bronze-coloured flares on the two closed rings.

b). A copper ring fused by corrosion to what appears to be a peculiar iron buckle (Fig. 8.2-12).
Dimensions overall: 38 × 37 × 15 mm.
Material: copper alloy and iron.

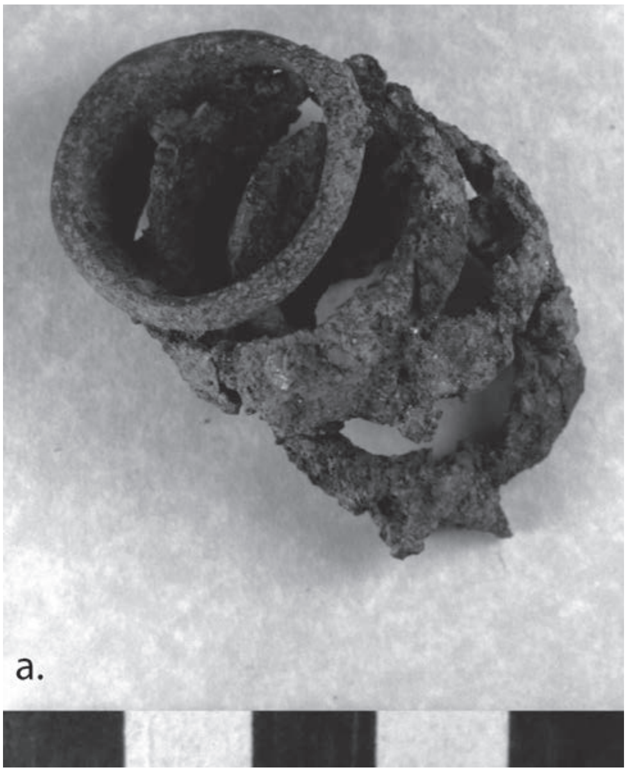


Figure 8.2-11. Three iron rings, fused together by corrosion (Cu alloy cat. no. 20a)

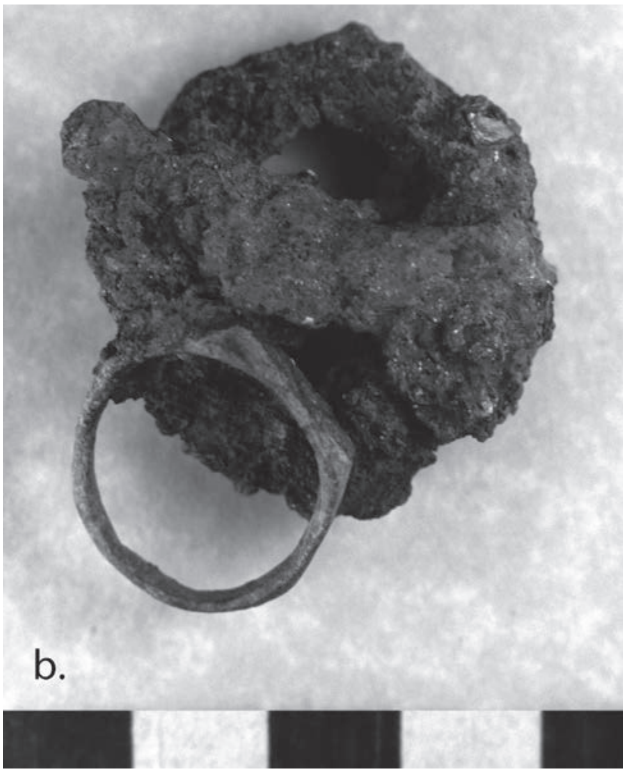


Figure 8.2-12. A copper ring fused by corrosion to what appears to be a peculiar iron buckle (Cu alloy cat. no. 20b)

The copper ring has a diameter of 20 mm and a hoop, 2 × 1 mm in section, which widens into a sub-rectangular bezel, with somewhat rounded ends, 18 × 6 mm, into which is incised a simple saltire cross. The buckle has a diameter of 27.5 mm and an unevenly forged band 2–3 mm wide and 2–3 mm thick. Hinged on this is a tongue with a wide ring-hinge on the band and a tapering shaft; this terminates in further elements of shaped iron, which appear to have been possibly accidentally brazed on. The corrosion makes it difficult to determine the original form of the tongue and the nature of the added pieces. Traces of mineralised textile and possibly leather.

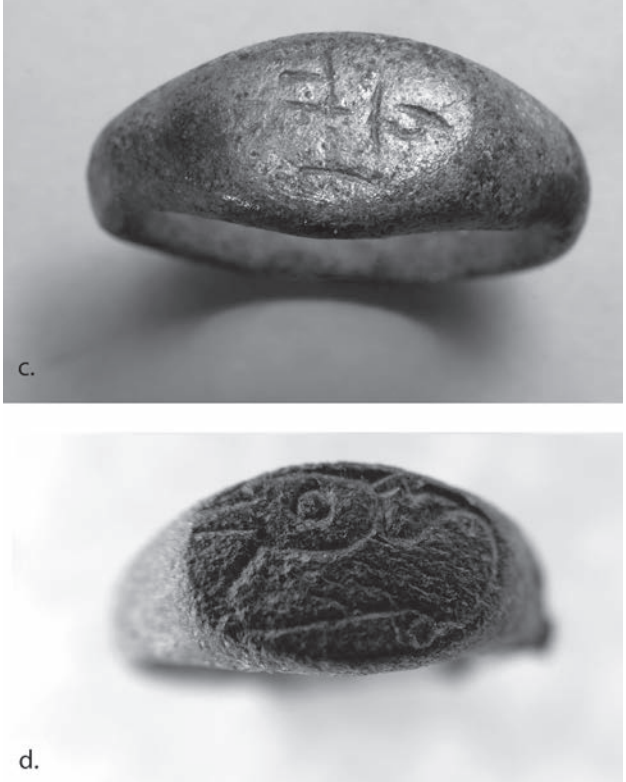


Figure 8.2-13. A copper band with an oval bezel incised with a monogram (Cu alloy cat. no. 20c) and copper alloy ring with a quadruped incised on the bezel (Cu alloy cat. no. 20d)

c). A copper band with an oval bezel incised with a monogram (Fig. 8.2-13).
Dimensions: ring: diameter: 22–21 mm; length of bezel: 12 mm.
Material: copper alloy.
A simple ring with an oval bezel incised with indecipherable characters in the manner of a loosely constructed cruciform monogram. This apparently imitates late antique 'Byzantine' rings with cruciform monograms, probably used here, in a juvenile funerary context, with a protective sense. For early Byzantine finger-rings with monograms see Chadour and Joppien, 1985, nos 138–47. Similar rings have been found elsewhere in Albania, at Arapaj (Hidri, 1987, pl. VIII.4).

d). A copper alloy ring (Fig. 8.2-13).
Diameter of 23 mm, the width of the hoop expanded to

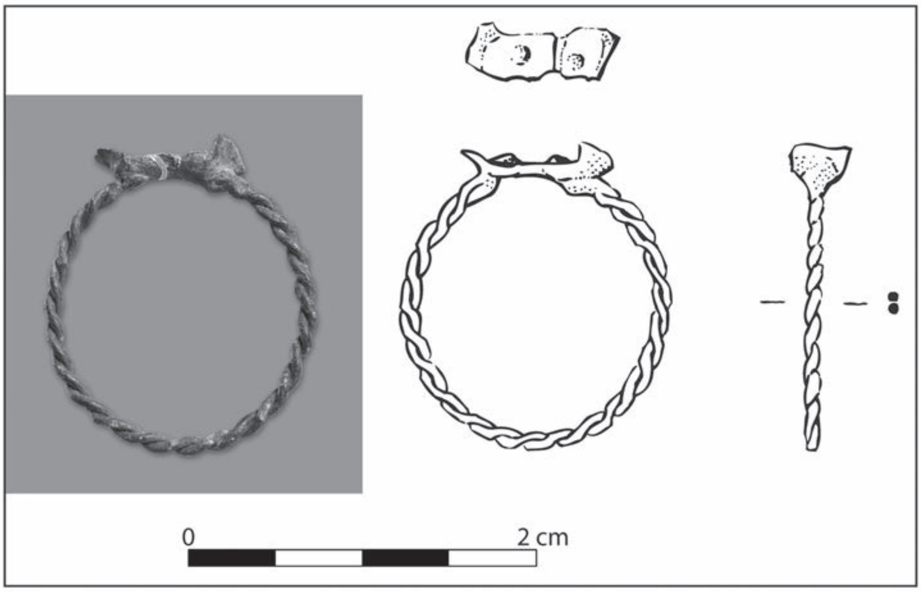


Figure 8.2-14. Finger-ring of twisted strip-wire (Cu alloy cat. no. 23)

an oval bezel 9 mm wide and 15 mm long. Thickness of hoop is 1.5–2.5 mm. A quadruped is incised somewhat summarily on the bezel, possibly a hare or rabbit with its head turn to look over its back at a small ivy leaf.

e). A small even ring of quite fine round-sectioned copper wire, diameter: 18 mm; section: *c*. 1.5 mm.
Date: late 6th to early 7th century.

21). *Coiled strip – finger-ring?*
Context: 2053. Triconch Room 16. Phases 12–13: humic build-up in courtyard, 10th to 12th century.
SF 1144.
Dimensions: diameter: 13–14 mm; width of band: 6 mm; thickness of strip: 1 mm.
Material: copper alloy.
A coiled strip of copper, with overlapping ends, perhaps a simple small finger-ring. Linear marks, mostly angled, have been incised on one section of the outer face.
Date: 10th to 12th century or earlier.

22). *Curled tapering strip – finger-ring?*
Context: 5301. Triconch Room 16 (courtyard). Phases 12–13: humic build-up in courtyard, 10th to 12th century.
SF 3003.
Dimensions: diameter: *c*. 23mm; width: 7–1 mm; thickness: 1 mm.
Material: copper alloy.
A short strip of copper, tapering to each end, curled to a penannular form, possibly to form a finger-ring.
Date: probably 10th to 12th century.

23). *Finger-ring of twisted strip-wire* (Fig. 8.2-14)
Context: 3087. Merchant's House Room 39 (courtyard). Phases 14–15: cultivation soil, 14th century and later.
SF 2032.
Dimensions: 23–20 mm; thickness of wire: *c*. 1 mm.

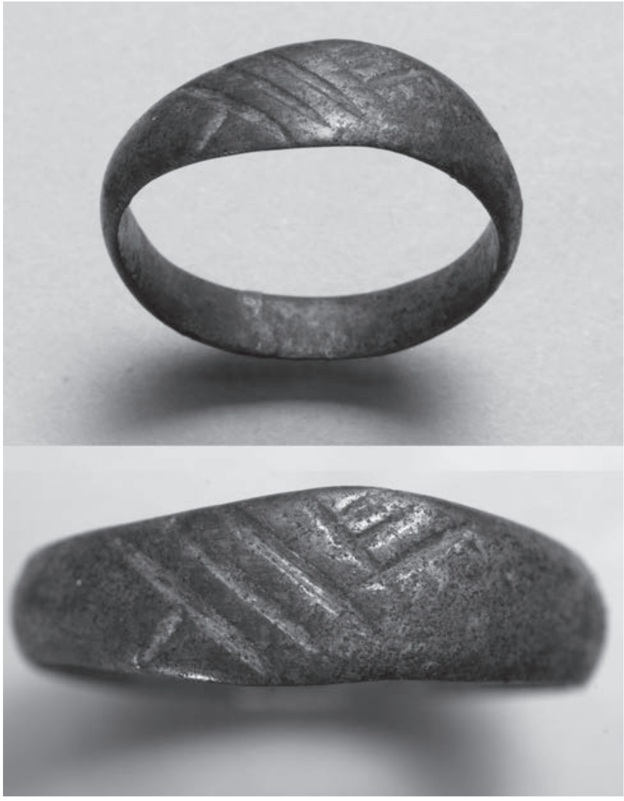


Figure 8.2-15. Finger-ring with diagonal linear device (Cu alloy cat. no. 24)

Material: copper alloy.
A delicate ring of barley-sugar-twisted strip-wire, with the remains of a bezel of thin copper sheet, designed to carry an ornament, possibly a small stone. A ring made of two lengths of copper wire, wound together to similar effect, found at Corinth, is dated to the 11th or 12th century (Davidson 1952, 229, 236, cat. 1844, pl. 103).
Date: uncertain; 14th to 15th century or earlier.

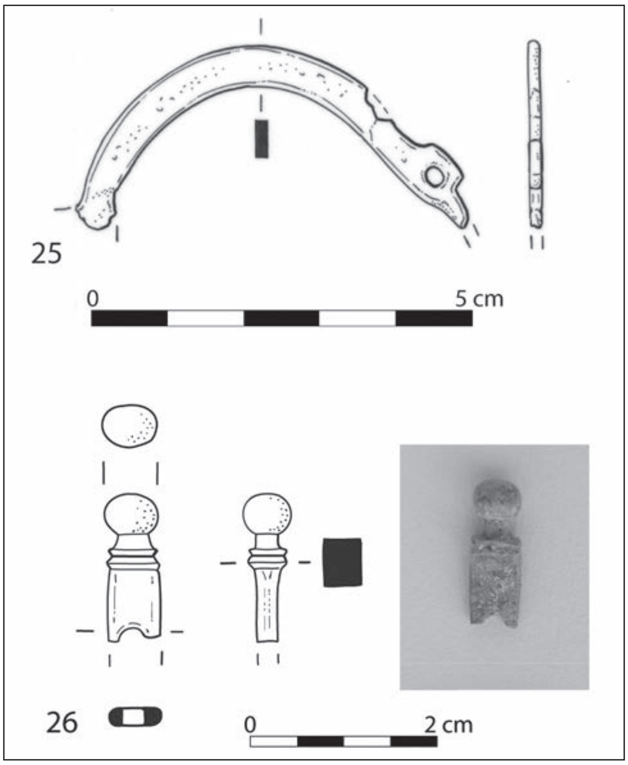


Figure 8.2-16. Bow of a bow fibula (Cu alloy cat. 25) and a possible knob-terminal from a radiate-headed brooch (Cu alloy cat. 26)

24). *Finger-ring with diagonal linear device* (Fig. 8.2-15)
Context: unstratified.
SF 2747.
Dimensions: diameter of band: 20 mm; width of band: 4–6.5 mm; thickness of band: *c*. 1 mm.
Material: copper alloy.
A copper hoop widening slightly at one side to form a bezel. This face is cut with a configuration of opposed diagonal striations to create a chiastic device.
Date: uncertain, probably 5th to early 7th century.

BROOCHES
25). *Two fragments from a bow fibula* (Fig. 8.2-16)
Context: 1892. Triconch Room 28 (bath-house in octagonal vestibule). Phases 5-6: fill of possible post-hole, 5th century.
SF 1088.
Dimensions: a). length: 50 mm; width: 2 mm; b). 22 x 8 x 2 mm.
Material: copper alloy.
The larger fragment is from the bow of a bow fibula and the smaller fragment is from the foot with a perforation for hinging the pin. No traces of the catch-mechanism for the pin are preserved.
These fragments seem to be from a high-arched brooch with pincer pin-swivel, of the same broad regional type as cat. 27, 29 and 30.
Date: probably 5th century.

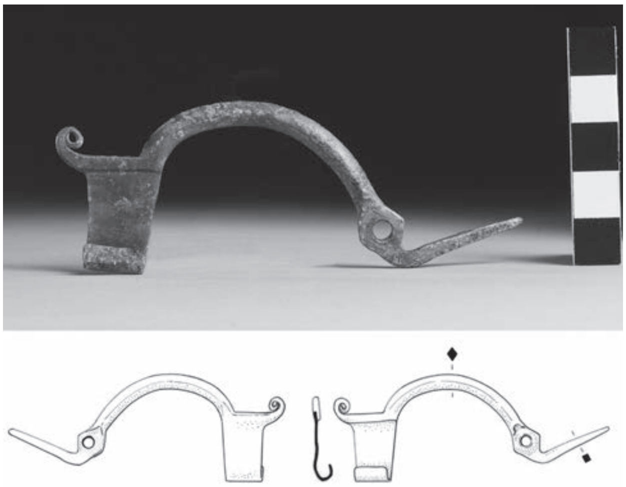


Figure 8.2-17. A simple undecorated bow fibula (Cu alloy cat. no. 27)

26). *Flat-sectioned shank with knob terminal* (Fig. 8.2-16)
Context: 4139. Merchants House Room 39 (courtyard). Phase 7: stone and tile surface in gateway, early 6th century.
SF 2633.
Dimensions: length: 15 mm; overall width: 4.5 mm; thickness of shaft: 2–1.5 mm; diameter of knob: 5 mm.
Material: hard alloy of copper.
Flat-sectioned shaft terminating in a small, carefully shaped and fashioned spherical knob set on a profiled rectangular collar. The shaft was pierced by a round hole and has broken across the perforation.

Possibly a knob-terminal from a radiate-headed brooch. Two completely preserved knob-terminals from brooches of this kind were found during excavations on the Vrina Plain site opposite Butrint in 2006 (Mitchell 2019: Copper cat. nos 18 and 19, SF 6097 and 6173). A number of similar objects have been found at Corinth, in 9th- to 12th-century contexts, identified as furniture fittings (Davidson 1952, 126–8, cat. 852-7, pl. 63).
Date: probably early 6th century.

27). *Bow fibula* (Fig. 8.2-17)
Context: 5006. Triconch Room 23 (south wing). Phase 8: collapse or demolition deposit, early to mid 6th century.
SF 2299.
Dimensions: length: 99 mm; height: 40 mm.
Material: copper alloy.
A simple undecorated bow fibula with markedly arched bow and a pincer configuration at the pin-swivel. The main body of the fibula is well preserved. Only the pin is missing. The catch-plate is rectangular, turned over at the bottom to hold the pin and elaborated at the top with a curling terminal crest. The other end of the bow is perforated to hinge the pin and then kicks up into a tapering tail. Missing is the pin with its ‘pincer’-like configuration, typical of brooches related to this type. Other examples of the type are Copper cat. 25, 29 and 30.

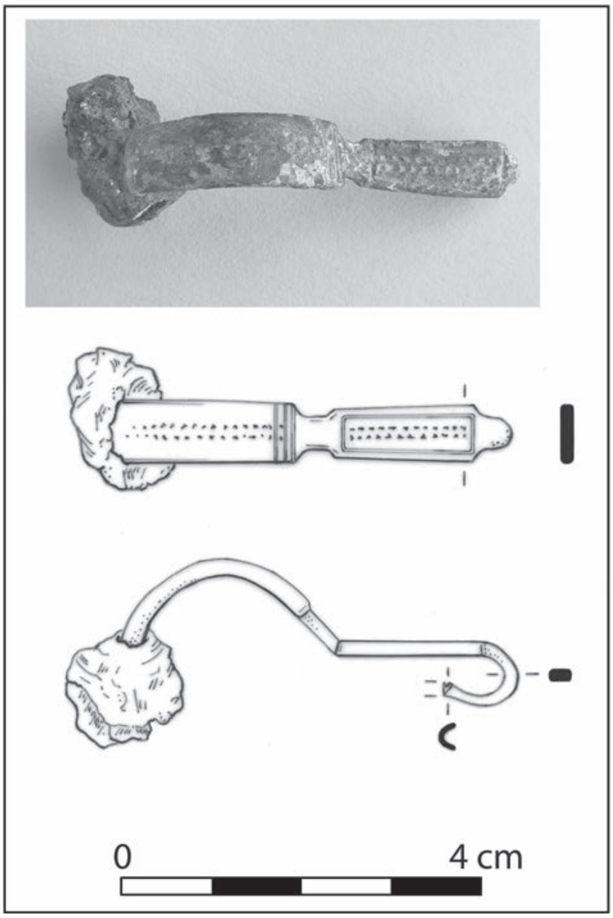


Figure 8.2-18. Small bow fibula (Cu alloy cat. no. 28)

Brooches of this type were probably manufactured in the region. Related examples have been found in excavations on the Vrina Plain, opposite Butrint (Mitchell 2019, 88-93, Copper cat. 13, 14, 17, 20, 21 and 22). One of these (cat. 17) was found in an early 5th-century context. Other examples of the type have been found in Albania at Leshnjë, where the graves in question have been dated to the 2nd to 4th century AD (Ylli 1975, 280, pl. I.1, VI.5, V8.1) and at Antigonea (Budina 1972, 48, 2). In general form the type is analogous to Prague/Zlicín-type fibulas of late 5th- to early 6th century date (Vávra *et al* 2012, fig. 11).
Date: probably 5th century.

28). *Small bow fibula* (Fig. 8.2-18)
Context: 5085. Triconch Room 18 (long gallery). Phase 9 or later: humic deposit, mid-6th century or later
SF 2467.
Dimensions: length: 49 mm; max width: 7 mm. thickness of sheet: 1.5 mm.
Material: copper alloy.
A small bow fibula cut from copper sheet. The body is bowed and waisted, with two parallel rows of incised stippling embellishing the plates either side of the waist. At one end the body terminates in a curling hook, to secure the pin; the other end is immersed in a mass of ferric corrosion.

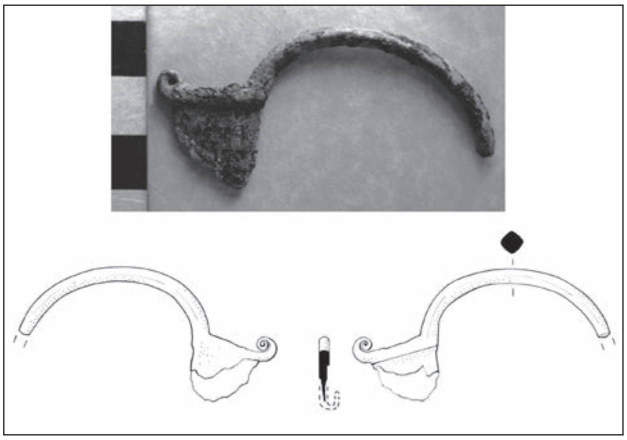


Figure 8.2-19. Fragmentary bow fibula (Cu alloy cat. no. 29)

Related types of brooch have been found in widespread locations from Albania (the cemeteries at Dalmace and Lezhë) and Serbia to the lower Danube and the Crimea, in predominantly 6th- or 7th-century contexts (Nallbani 2002, 185–8, cat. 136–47, pls 14 and 15).
Date: probably later 6th century.

29). *Fragmentary bow fibula* (Fig. 8.2-19)
Context: 3105. Merchant's House Room 40. Phase 10: roof collapse, late 6th to early 7th century.
SF 2463
Dimensions: preserved length: 60 mm; preserved height: 28 mm; diameter of body: 3 mm.
Material: copper alloy.
The bow and catch-plate of a simple undecorated bow fibula. The catch-plate is rounded, the curl to hold the pin now broken away. The plate terminates in a curling crest at the head. The curving body of the bow has a poised square/lozenge section. The foot of the brooch with the hinge for the pin has broken away. This fragment seems to be from a high-arched brooch with pincer pin-swivel, a variant of the same regional type as cat. 25, 27 and 30. The catch-plate has curved contours coming to a point, rather than being sub-rectangular.

This brooch was found together with a follis of Justinian of AD 538/9 and another of Justin II (See Appendix 6.1 nos 391 and 409), ceramics from the late 5th and late 6th century and a range of other artefacts, including a vessel handle in the form of a leaping hound (cat. 57) and two hooks (cat. 103 and 104), in the collapse of the upper floor, by the threshold at the western end of this two-storey building.
Date: probably 5th or 6th century.

30). *Fragment of a bow fibula*
Context: 3076. Merchants House Room 39 (courtyard). Phase 14a: cultivation soil, 13th to 14th century.
SF 2020.
Dimensions: 38 x 9 x 2 mm.
Material: copper alloy.

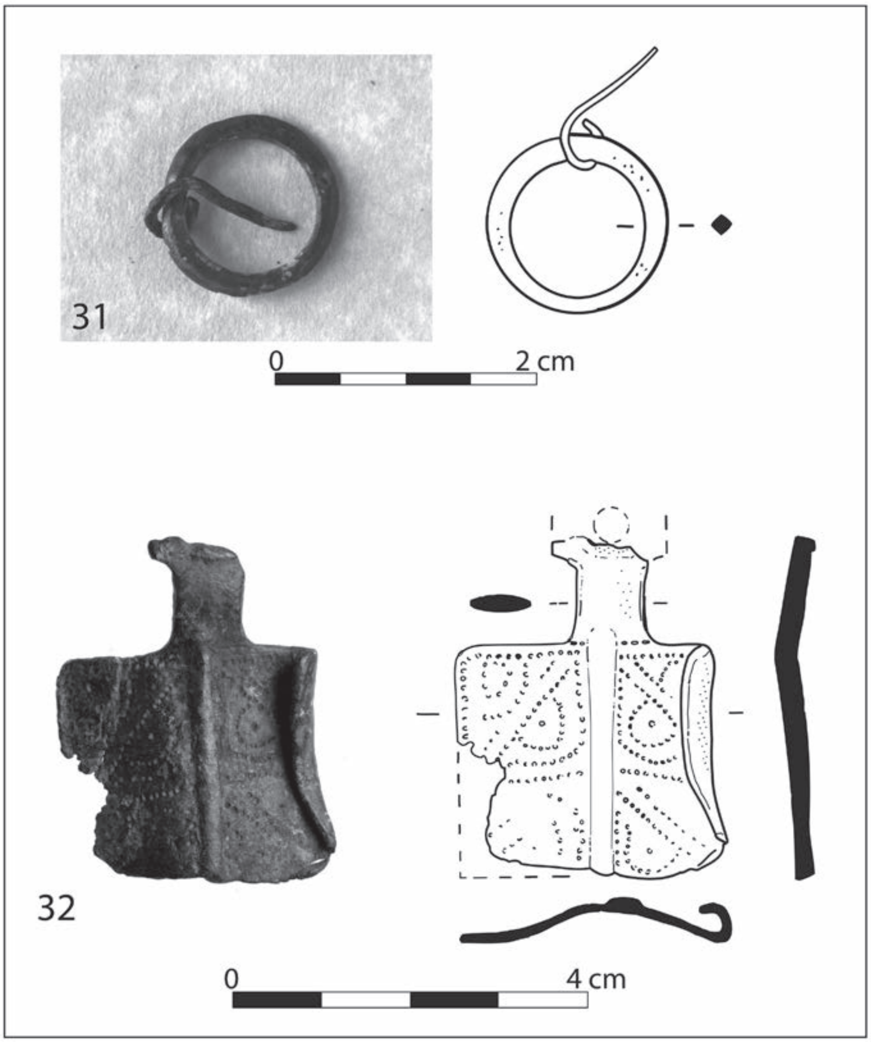


Figure 8.2-20. Small annular brooch (Cu alloy cat. no. 31) and the central section of a Komani-style brooch (Cu alloy cat. no. 32)

A fragment of a brooch; the catch-plate and the beginning of the bow are preserved. The catch-plate is rectangular, turned over at the bottom to hold the pin, embellished with an angled crest at the head. The rod of the bow is twisted in a barley-sugar configuration. This fragment seems to be from a high-arched brooch with pincer swivel, a variant of the same regional type as cat. 25, 27 and 29. A brooch of similar formation with a barley-sugar bow was found in excavations at Antigonea, in southwestern Albania (Budina, 1972, fig. 48b).
Date: probably 5th century.

31). *Small annular brooch* (Fig. 8.2-20)
Context: 3220. Merchant's House Room 39 (courtyard). Phases 14–15: cultivation soil, 14th century or later.
SF 2088.
Dimensions: diameter of ring: 12 mm; diameter of wire of ring: *c*. 2 mm; diameter of wire of tongue: less than 1 mm.
Material: copper alloy.
Well-preserved tiny delicate annular brooch consisting of a ring of copper wire, with a twist of thinner wire for the tongue. A similar small annular brooch was found in a 6th- to 8th-century cemetery at Durrës (Nallbani 2002, 230, cat. 272, pl. 27). The type was in widespread use; examples have been found in Britain, in both Anglo-Saxon and medieval contexts (Hattatt 1985, 222, fig. 87, 696–7). The short pin/tongue may indicate that this was used as a delicate buckle.
Date: 14th to 15th century or earlier.

32). *Central section of a Komani-style brooch* (Fig. 8.2-20)
Context: 5007. Triconch Room 18 (long gallery). Phase 14-15: subsoil, 14th century and later.
SF 462.
Dimensions: length: 39 mm; max width: 29 mm; thickness: *c*. 1 mm.
Material: copper alloy
The central section of a Komani-style brooch with waisted head. The head and the lower part of the plate have broken away, one of the two lateral edges is damaged and the

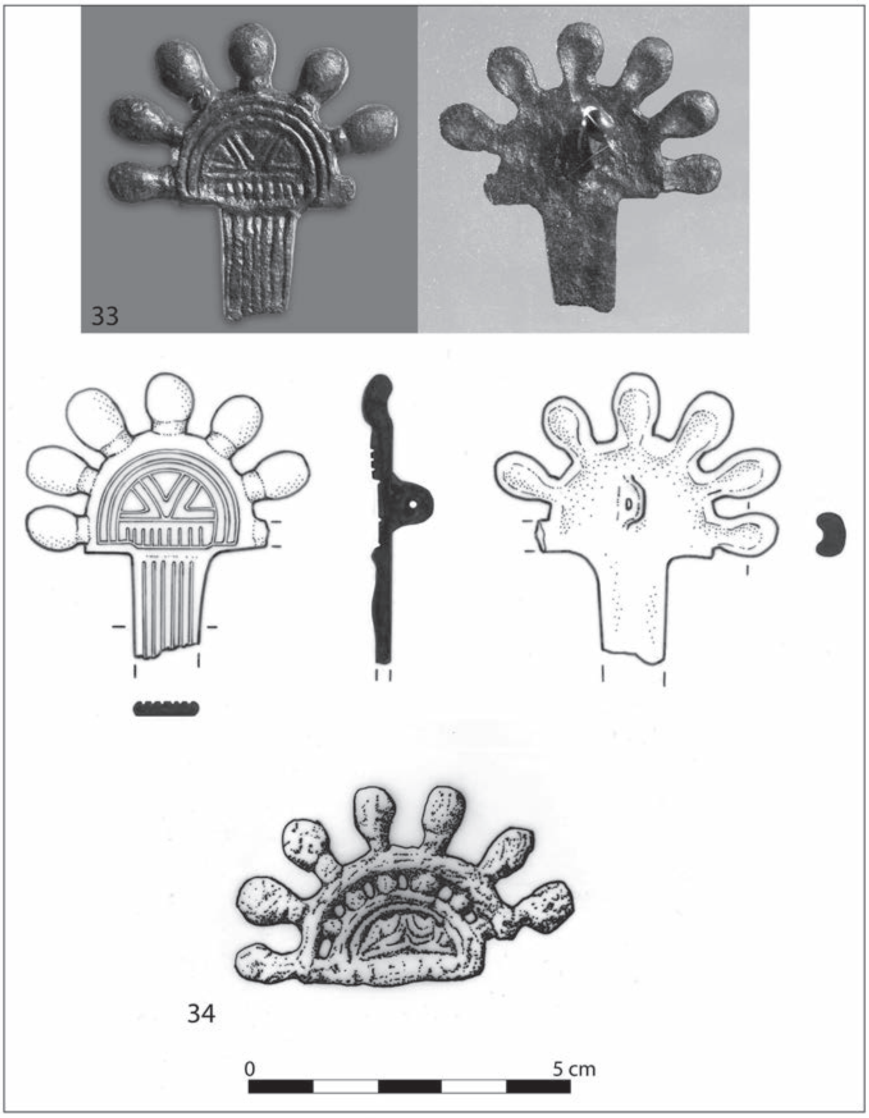


Figure 8.2-21. Fragmentary radiate-headed brooch (Cu alloy cat. no 33) and a headplate of a radiate-headed brooch (Cu alloy cat. 34)

other bent over. The plate has a central raised spine on its display face, which carries an elaborate punched decoration of lines and circles.

Brooches of related types have been found in cemeteries in north-western Albania, at Dalmace, Bukël, Prosek, Krüje and Shurdhah and at Aphiona on Corfu; usually dated to the 7th–8th century (Bulle 1934; Nallbani 2002, 192–6, pl. 18–23).
Date: Probably 7th to 8th century.

33). *Fragmentary radiate-headed brooch* (Fig. 8.2-21)
Context: 5265. Triconch Room 16 (courtyard). Phase 15: unstratified topsoil.
SF 2803.
Dimensions: length: 43 mm; max width: 42 mm. thickness: *c*. 2 mm.
Material: copper alloy.
The semi-circular headplate and upper shank of a radiate-headed brooch. Six (originally seven) waisted and collared knobs project from the semi-circular plate. The lunette on the display face is framed by three narrow concentric bands and contains a configuration of three converging triangles over a band ornamented with little vertical paired lines. The shank is decorated with a series of striated ridges running down its length. The surviving fragment is flat, with no trace of the bow, a common feature of this pattern of brooch. The rear face is plain, and fairly uneven, with depressions behind each of the knobs. A pierced semi-circular lug, to hinge the pin, rises *c*. 5 mm from the middle of this rear face. The brooch, knobs and lug have been cast in one piece.

This is a Werner type 1c Slavic radiate-headed brooch (Werner 1950). The type can be dated to the early 7th century (pers. comm., Florin Curta). Brooches of this kind typically were worn in pairs by women. The head of a similar brooch was found in topsoil clearance in the area

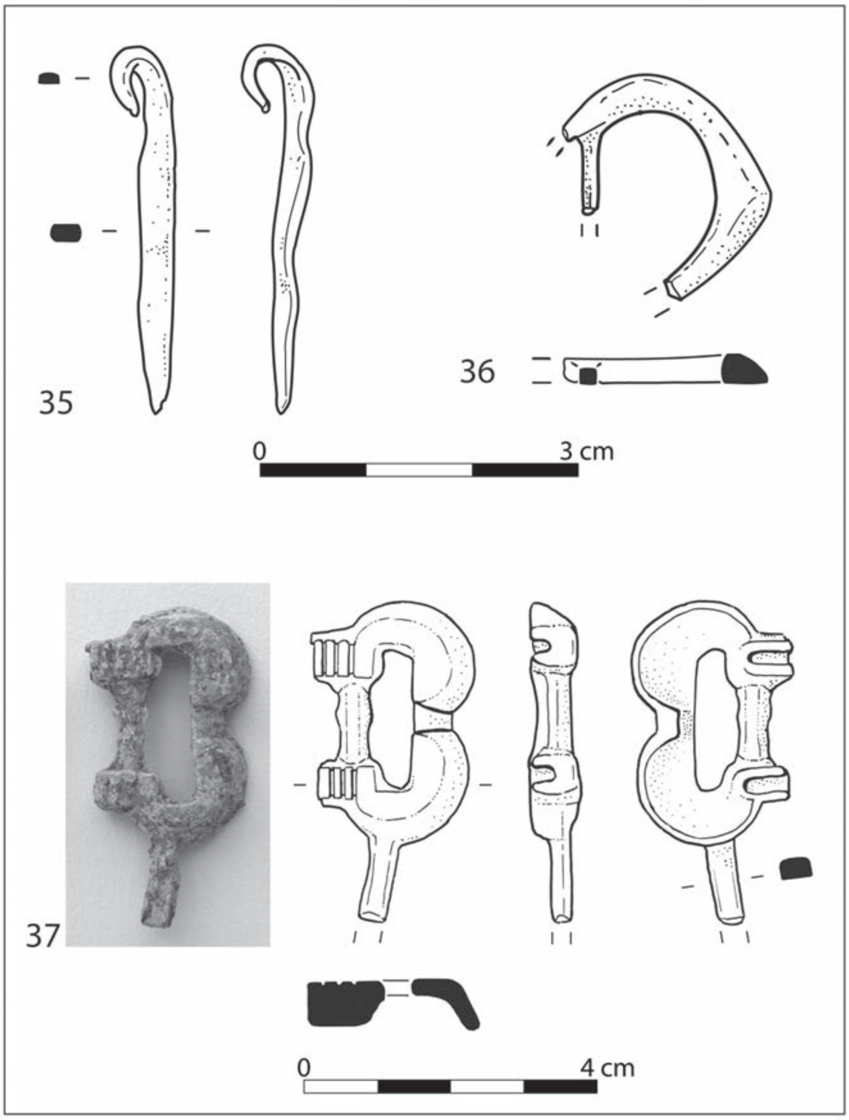


Figure 8.2-22. Copper alloy buckle pieces (Cu alloy cat. nos 35, 36 and 37)

of the Triconch triclinium in 1994 (cat. 34, and see Guest *et al.* 2004, 294–5, cat. 3, fig. 16.3).
Date: probably early 7th century.

34). *Headplate of a radiate-headed brooch* (Fig. 8.2-21)
Context: 1101. Triconch Room 1 (triconch *triclinium*): Phase 15: unstratified topsoil.
SF 35.
Dimensions: length: 31 mm; width: 54 mm.
Material: copper alloy.
The semi-circular headplate of a radiate-headed brooch, with seven (originally eight) projecting knobs. The semi-circular central field carries a complex design in cast relief, possibly a devolved Style-I animal ornament, beneath an arching frame with a running sequence of large and small pearls in alternation sandwiched between two framing fascias. The head together with the missing body of the brooch were all cast in one piece.

This is a Werner type 1a Slavic radiate-headed brooch (Werner 1950). The type can be dated to the early 7th century. Brooches of this kind were typically worn in pairs by women.

This item went missing from the project headquarters in the castle at Butrint during the civil disturbance of 1997. The head and upper body of a related brooch was found in the Triconch courtyard in 2003 (cat. 33).
Date: probably early 7th century.
Bibliography: Guest *et al.* 2004, 294–5, cat. 3.

BUCKLES
35). *Short length of wire with loop, probably the tongue of a buckle* (Fig. 8.2-22)
Context: 4056. Merchant's House Room 37. Phase 6: floor surface, mid- to late 5th century.
SF 2624.
Dimensions: length: 35 mm; section: 2 × 2 mm.
Material: copper alloy.
Fragment of sub-square-sectioned wire, bent to form an

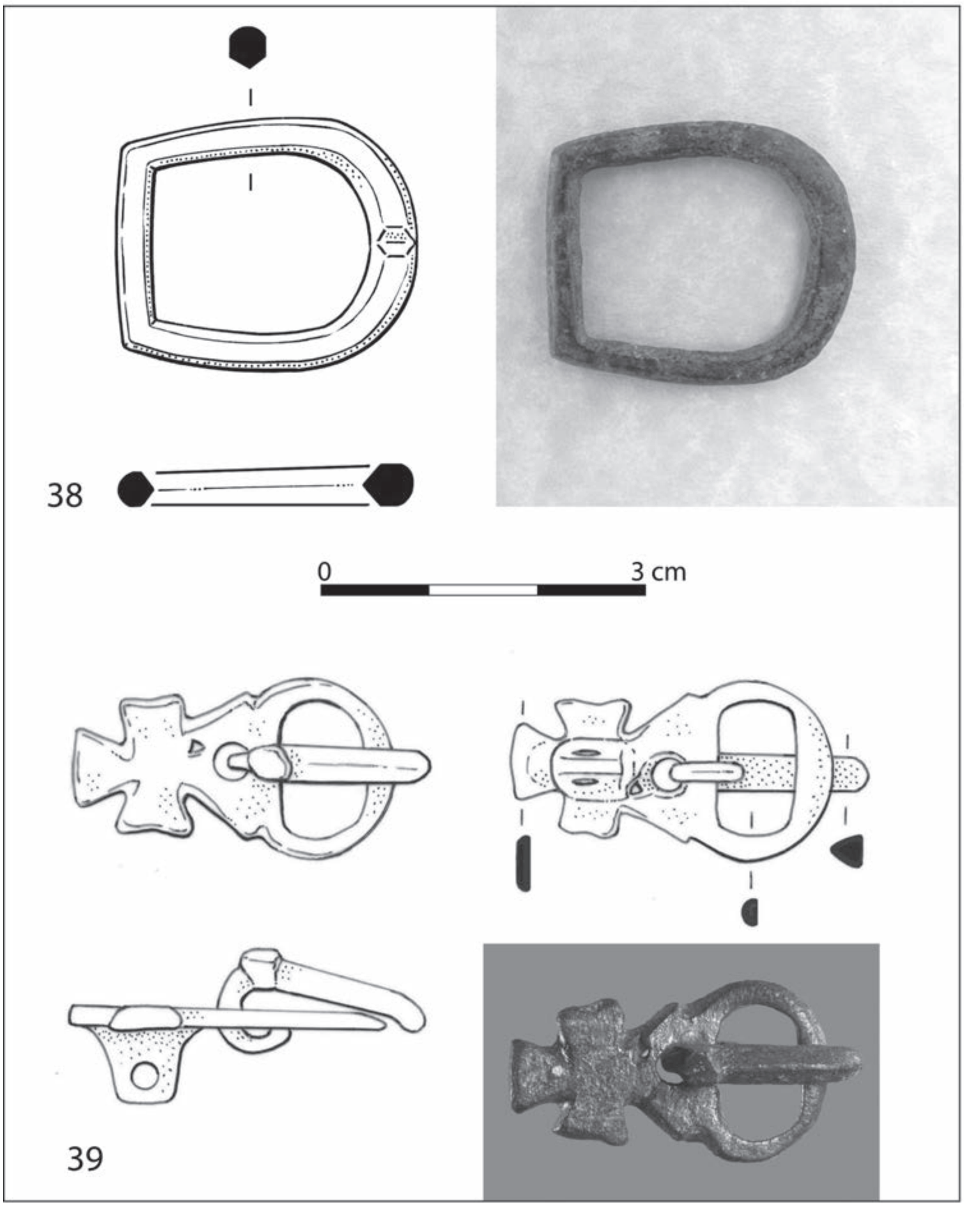


Figure 8.2-23. Copper alloy buckles (Cu alloy cat. nos 38 and 39)

open loop at one end. This would appear to be the tongue of a small buckle.
Date: probably 5th century.

36). *Fragment of a buckle* (Fig. 8.2-22)
Context: 5635. Triconch Room 19 (south wing). Phase 6: clay floor, mid- to late 5th century.
SF 3288.
Dimensions: length: 19.5 mm; width: 21 mm; thickness of hoop: 2.8 mm.
Material: copper alloy.
The hoop of a buckle, with the bow coming to an obtuse peak. Part of the bar and bow are missing. Buckles of similar form have been found in 4th- to 7th-century contexts at Corinth (Davidson 1952, 266, 270, pl. 113, n. 2176), Nessana (Colt 1962, 53, pl. 23.12), Salamis (Chavane 1975, 162, pl. 46 n. 465), Anemurium (Russell 1982, Type 2, nos 4, 5) and Sardis (Waldbaum 1983, 121, cat. 710, pl. 45).
Date: 5th century or earlier.

37). *Buckle*? (Fig. 8.2-22)
Context: 1606. Triconch Room 18 (long gallery). Phase 9: occupation horizon, mid- to late 6th century.
SF 2389.
Dimensions: length: 43 mm; width: 22 mm; thickness: 6 mm.
Material: copper alloy.
Enigmatic hollow cast artefact, resembling a buckle. A double-bowed conformation with a gently curving post projecting at one side, apparently broken at the end. The

surfaces are carefully formed and finished; the object is fractured at three points.

This seems to be a buckle, with the strap-plate broken off and missing. It appears to be in an unfinished state, possibly a rejected miscast, with a sprue from a casting-vent still in place. It could be a product of one of the furnaces in operation in Room 18 in the second half of the 6th century (Bowden *et al.* 2011d, 96–105; Chapter 10 this volume). A buckle of similar form, of uncertain early medieval date, has been found at Corinth (Davidson 1952, 269, 274, cat. 2234, pl. 115).
Date: 6th century.

38). *Hoop of a buckle* (Fig. 8.2-23)
Context: 5267. Triconch Room 21 (south wing). Phase 9: furnace fill, mid- to late 6th century.
SF 2813.
Dimensions: length: 27 mm; width: 23 mm; thickness of hoop: 2.5–4 mm.
Material: copper alloy.
A simple hoop of a buckle, slightly horse-shoe-shaped. The tongue is missing. There are no obvious signs of wear on the base bar. This may indicate that the buckle was made on site and was either never completed or never used.
Date: 6th century.

39). *Small buckle with plate in form of cross* (Fig. 8.2-23)
Context: 4001. Merchant's House Room 43. Phase 10: dumping, late 6th to early 7th century.
SF 2306.
Dimensions: length: 31 mm; max width of bow: 15 mm; thickness of plate: 2 mm.
Material: copper alloy.
A well-preserved small buckle with plate in the form of a cross. A lug with a perforation for attachment to a strap projects 6 mm from the rear face of the plate. Variants of this type of buckle have been found at various sites in Italy, including the Crypta Balbi in Rome (Ricci 1997, 253, pl. 5.5; Ricci 2001, 386–7 with references to further examples), at Corinth (Davidson 1952, 275, pl. 115, no. 2240; Werner 1955; Štefanovičová 1980, fig. I, 3), Anemurium (Russell 1982,142, fig. 7.18–20) and at other sites in the eastern Mediterranean and in the area of the Black Sea (Russell 1982, 142, 152; Ricci 2001, 387).
Date: probably late 6th to early 7th century.
Bibliography: Mitchell 2007, 293–4, fig. 11a.

40). *Fragment of a buckle* (Fig. 8.2-24)
Context: 1473. Triconch Room 31 (west wing). Phase 13: occupation deposit, early 11th to late 12th century.
SF 708.
Dimensions: length: 26 mm; preserved width: 25 mm; thickness of bow: 4-5 mm.
Material: copper alloy.
Fragmentary hoop of a buckle. Part of the bar and part of the bow are missing. It bears few, if any, signs of wear.
Date: 11th to 12th century or earlier.

41). *Buckle with traces of gilding* (Fig. 8.2-24)
Context: 5002. Triconch Room 19 (south wing). Phase 13: rubble of circular structure, late 11th to late 12th century.
SF 2385.
Dimensions: length: 45 mm; max width of bow: 16 mm; interior diameter of bow: 12 mm; max width of plate: 8 mm at front, 7 mm at back.
Material: copper alloy and gold.
Complete simple buckle with almost circular ring, shoulders and a bar around which a long rectangular strap-plate of copper sheet is bent back on itself and secured by two rivets, one of which is missing. The surviving rivet has a sub-domical head and its tip is clenched over. The end of the plate is gently concave. The shape of a leaf is traced on the display face of the plate in delicate punched work. The tongue is preserved. There are traces of gilding on all surfaces. A buckle found at Corinth and dated to the 9th to 12th century is of similar form although seemingly rougher in manufacture (Davidson 1952, 269, 274, cat. 2239, pl. 115).
Date: 11th to 12th century or earlier.

42). *Buckle* (Fig. 8.2-24)
Context: 5007. Triconch Room 18 (long gallery). Phases 14–15: subsoil, 14th century and later.
SF 2310.
Dimensions: Length: 40 mm; max width of bow: 21 mm; max width of plate: 16 mm; width of opening for strap in bow: 16.5 mm; height of opening: 8 mm.
Material: copper alloy
Small buckle of central Italian Byzantine Lombardic type. The plate is ogee-shaped, edged with prominent pearling, framing a plain field with an incised device resembling an inverted funnel over two short horizontal lines and a lower-case omega. The horns of the bow swell quite dramatically, their terminals joined by a sunken bridge to support the tongue. The tongue is missing.

This is a buckle of a type widespread in the Byzantine eastern Mediterranean. A variant type with hinged bow is found occasionally in Italy, in a number of graves at Castel Trosino from the late 6th to early 7th century (Paroli 2000, 148, figs 13.10 and 12) and at the Crypta Balbi in Rome (Ricci 2001, 373–4, cat. II. 4. 586). The profile of the bow is similar to buckles found at the Crypta Balbi (Ricci 1997, 240, 243, figs 1.8–9, 2.7; Ricci 2001, 373, cat. 584–5).
Date: late 6th to early 7th century.

STRAP-ENDS

43). *Small sheet strap-end* (Fig. 8.2-25)
Context: 1502. Triconch Room 23 (south wing). Phase 12–13: infant grave-fill, probably 11th century.
SF 718.
Dimensions: length: 28 mm; width: 12 ≥ 9 mm; thickness: less than 1 mm.
Material: copper alloy.
A small fragment of shaped sheet/strip; a mount of some kind, probably a simple strap-end, with sides tapering

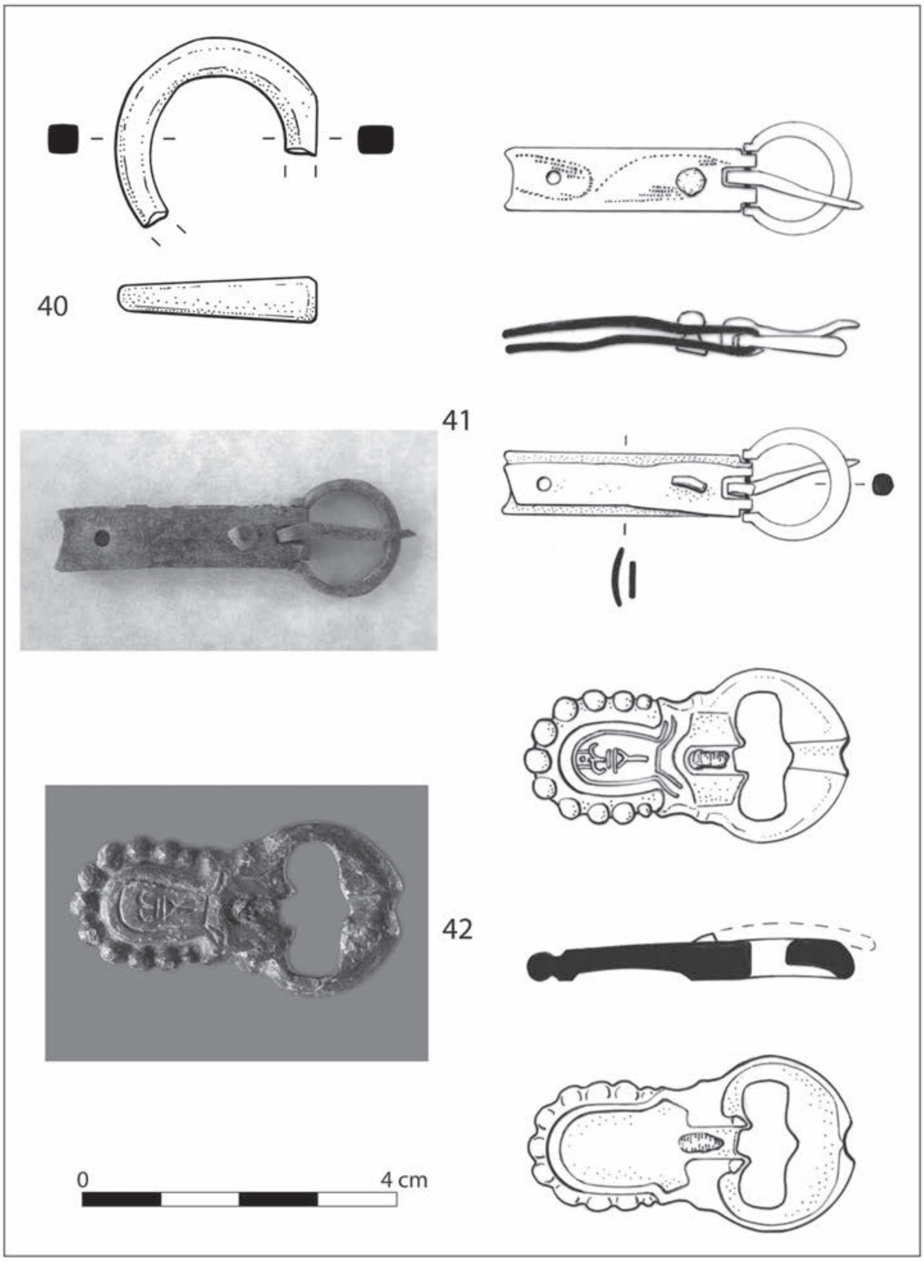


Figure 8.2-24. Copper alloy buckles (Cu alloy cat. nos 40, 41 and 42)

slightly to a rounded end. The other end is straight but damaged; one corner and the beginning of the straight return preserved. It is pierced by two small round holes for fixing, one at the rounded apex, and the other in the surviving corner at the other end. Creased two-thirds of the way along its length. Probably designed to be secured by fine rivets to the end of a leather strap.
Date: 11th century or earlier.

44). *Strap-end* (Fig. 8.2-25)
Context: 5322. Triconch Room 16 (courtyard). Phases 12–13: levelling deposit, early 10th to late 12th century.
SF 3091.
Dimensions: length: 58 mm; width: 12 ≥ 9 mm; thickness: *c*. 2 mm.
Material: copper alloy.
Narrow strap-end, tapering gently to a rounded end. The other end terminates in a zig-zag with three points. The mount has been cast and the display face is decorated with a sequence of lyriform foliate motifs. At the tip, the final plant is subtly transformed into the fore-quarters of a crouching beast. The stubs of four lugs or rivets project from the rear face.

This mount is of a type quite widespread in central Europe, with analogues in late 9th-/early 10th-century Kazar-style strap-ends from Moravia and in 10th-century strap-mounts from Bulgaria, including Preslav (pers. comm., Florin Curta).
Date: probably later 9th to early 10th century.

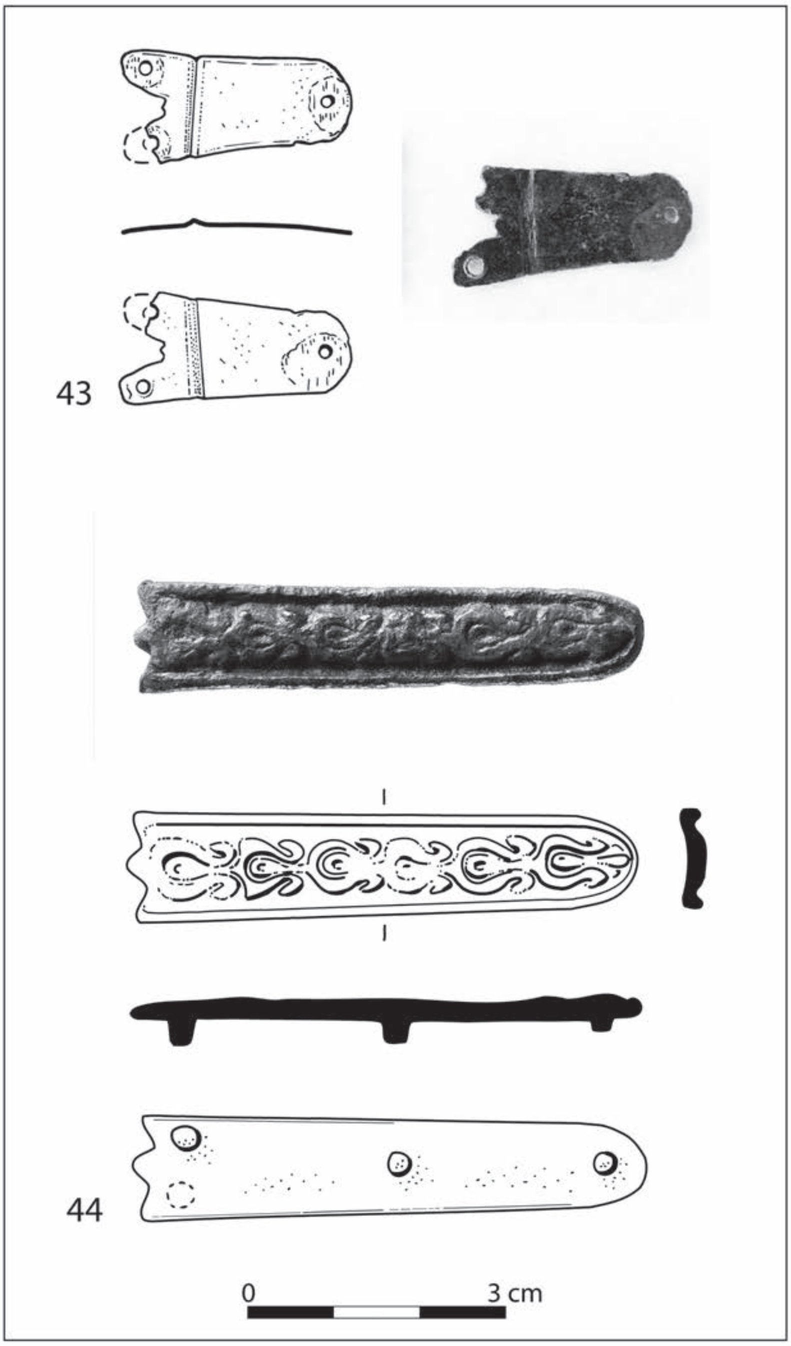


Figure 8.2-25. Strap-ends (Cu alloy cat. nos 43 and 44)

OTHER PERSONAL ORNAMENTS, DRESS FITTINGS AND FASTENINGS

45). *Dress-fastener*? (Fig. 8.2-26)
Context: 1009. Triconch Room 10 (to north of *triclinium*). Phase 2, demolition deposit, 4th century.
SF 497.
Dimensions: diameter: 18 mm; section of wire: 6 > 2 mm.
Material: copper alloy.
A small open ring of copper, tapered at one end and splayed at the other. Little decorative marks have been incised into the splay. This is possibly a fastener for clothing.
Date: 4th century or earlier.

46). *Belt-mount* (Fig. 8.2-26)
Context: 3240. Triconch Room 22 (south wing). Phase 5: occupation level, early to mid-5th century.
SF 1978.
Dimensions: length: 62 mm; diameter of central disc: 16 mm; thickness: *c*. 1.5 mm.
Material: copper alloy.
A propeller-shaped mount pierced by three rivet-holes for attachment, in the central disc and at either end. One rivet remains in place. The contours of the display face are ornamented with pairs of short incised lines, creating a ‘crenellated’ effect. The rear face is undecorated.

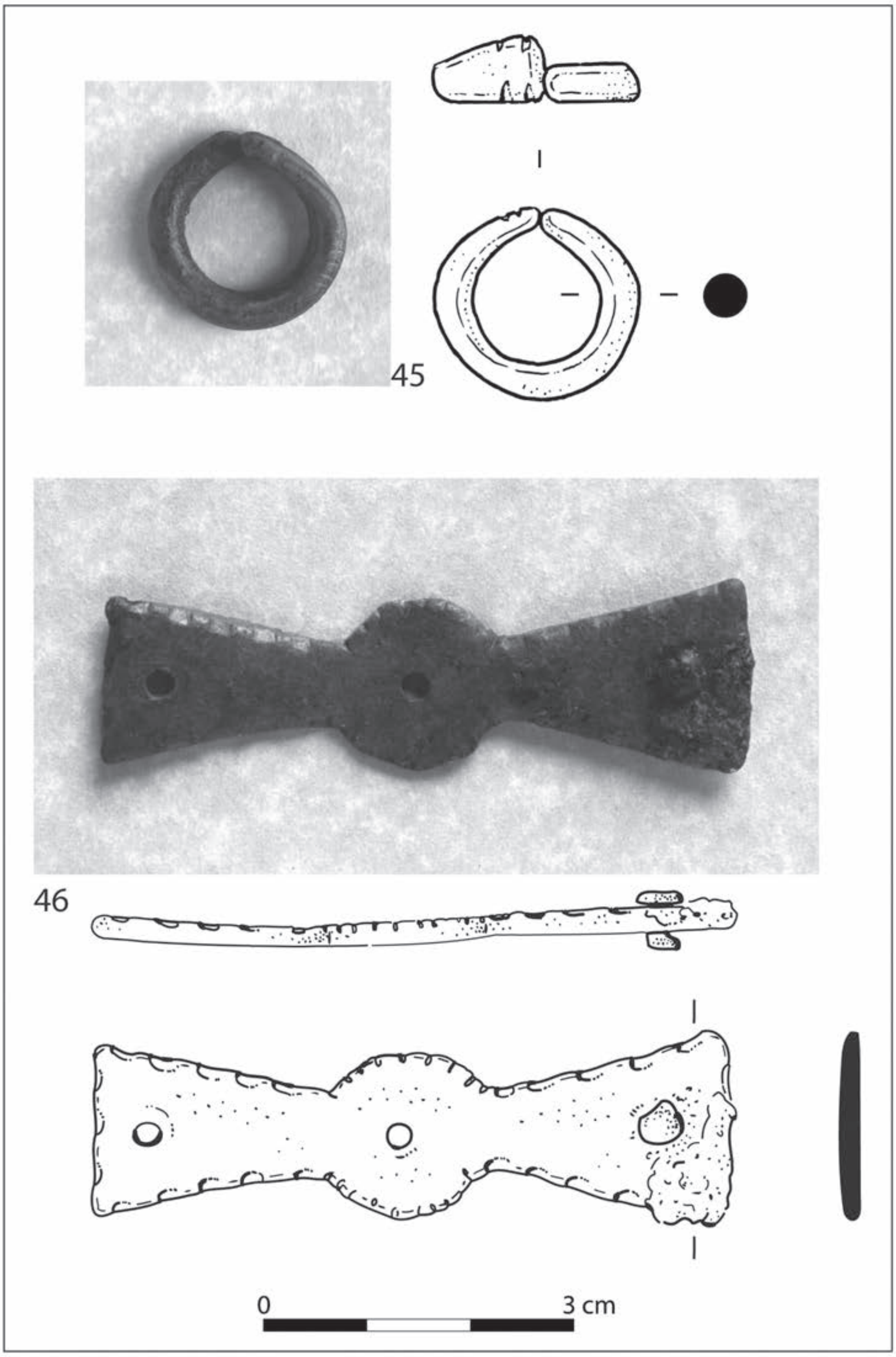


Figure 8.2-26. Possible dress-fastener (Cu alloy cat. no. 45) and belt-mount (Cu alloy cat. no. 46)

This is a probably a belt mount of a type quite widespread on the Middle Danube in the 5th century, typically fixed in a vertical position. Related belt-mounts dating to the 3rd to 4th century, now in the archaeological museum in Priština, have been found in Kosovo (Tasic, 1998, 2, cat. 295). For a possible local imitation of this type in bone, see Bone cat. 15, found in association with a sleeved cutting tool (Copper cat. 84).
Date: late 4th to early 5th century.

47). *Slender triangular probe with gilded rivet-rove* (Fig. 8.2-27)
Context: 1526. Triconch Room 25 (west wing). Phases 5–6: stake-hole fill, 5th to 6th century.
SF 792.
Dimensions: length: 26 mm; width: 6 > 2 mm; thickness: 2 mm.
Material: copper alloy.
A small slender triangular artefact, made of thin sheet, bent over and soldered to form a point with an open sleeve at its

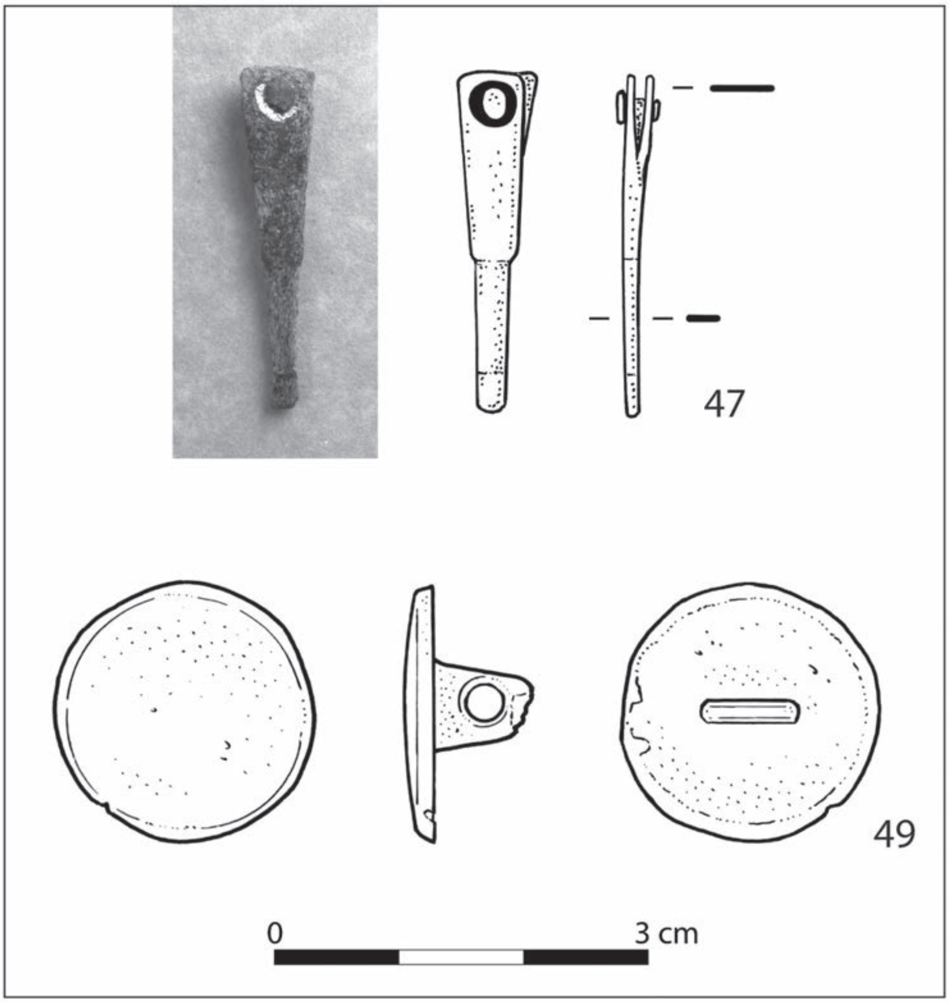


Figure 8.2-27. Triangular probe with gilded rivet-rove (Cu alloy cat. no 47) and small button (Cu alloy cat. no. 49)

lower end, pierced by a rivet which once must have secured it to a slender strap or shaft, in leather or a material like wood or bone. The rivet is held by a gilded rove on one side. Function uncertain; possibly a strap-end or probe of some kind, or a toilet artefact.
Date: 5th to 6th century.

48). *Decorated hinged fitting?* (Fig. 8.2-28)
Context: 5322. Triconch Room 16 (courtyard). Phases 12–13: levelling deposit, early 10th to late 12th century.
SF 3037.
Dimensions: overall length: 84 mm; width of strips: 8 mm.
Material: copper alloy.
Two slightly bowed hinged copper strips, with a tenon on one engaging with a mortise on the other, the two secured with a pin. The two strips are uniformly ornamented with a band of ring-dots over a sequence of arcs which engage, one just resting on the next. Tiny rings fill the spandrels over the arcs and a sunburst of radiating lines is set within each arc. Both strips are broken at their outer ends. They were probably cut from one strip. Their rear faces are plain. At the outer end, one of the strips is pierced by a small round hole. This may be part of a bracelet, although the small perforation might speak against this. Two fragmentary bracelets with analogous engraved and punched decoration, although with no evidence of having been hinged, dated to the 4th century or somewhat later, have been found at Corinth (Davidson 1952, 262–3, cat. 2131-20, pl. 112).
Date: 10th to 12th century or earlier; probably 4th to 7th century.

49). *Small button* (Fig. 8.2-27)
Context: 5265. Triconch Room 16 (courtyard). Phase 15: unstratified topsoil.
SF 2822.
Dimensions: diameter: 22 mm; thickness 11 mm.
Material: copper alloy.
A small round button with a plain flat display surface and a pierced lug on the rear face for attachment.
Date: uncertain, modern?

PINS

50). *Fragmentary dress or hair pin* (Fig. 8.2-29)
Context: 1152. Triconch Room 14 (north wing). Phase 8: midden or dump, *c*. AD 525–50.
SF 51.

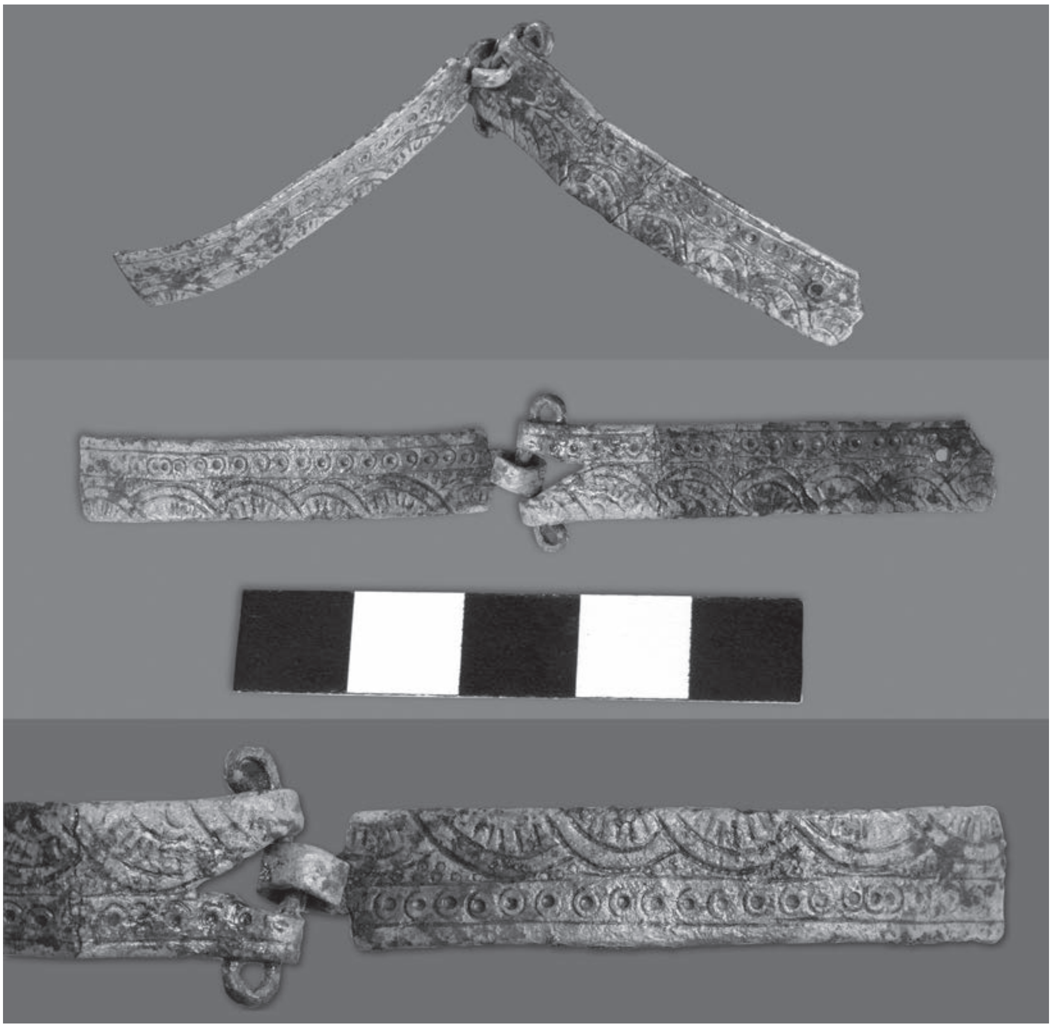


Figure 8.2-28. Decorated hinged fitting (Cu alloy cat. no. 48)

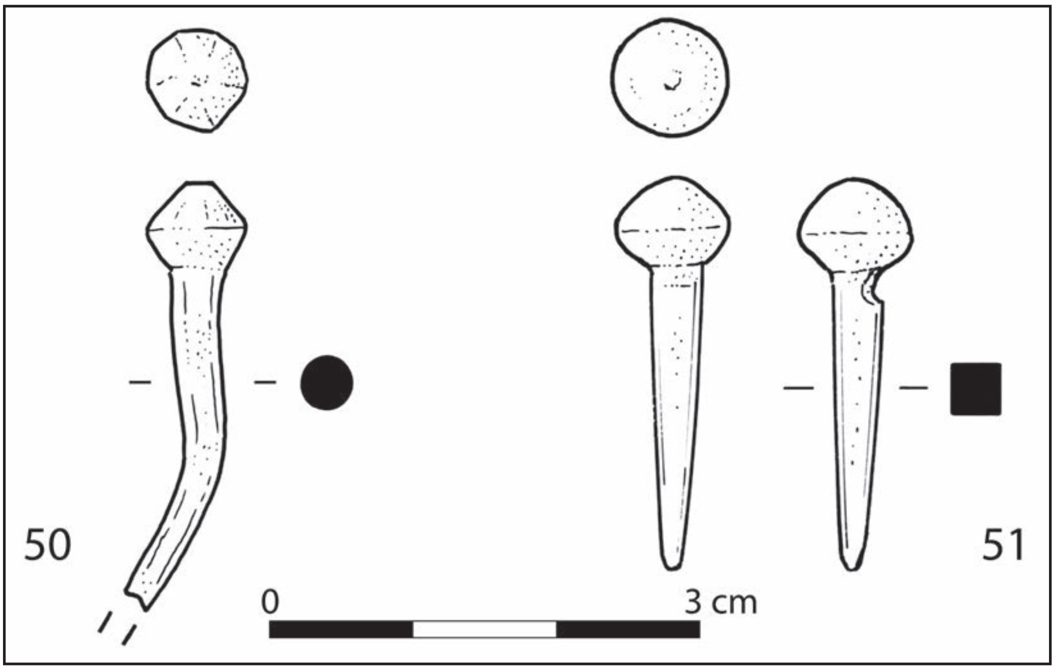


Figure 8.2-29. Copper alloy pins (Cu alloy cat. nos 50 and 51)

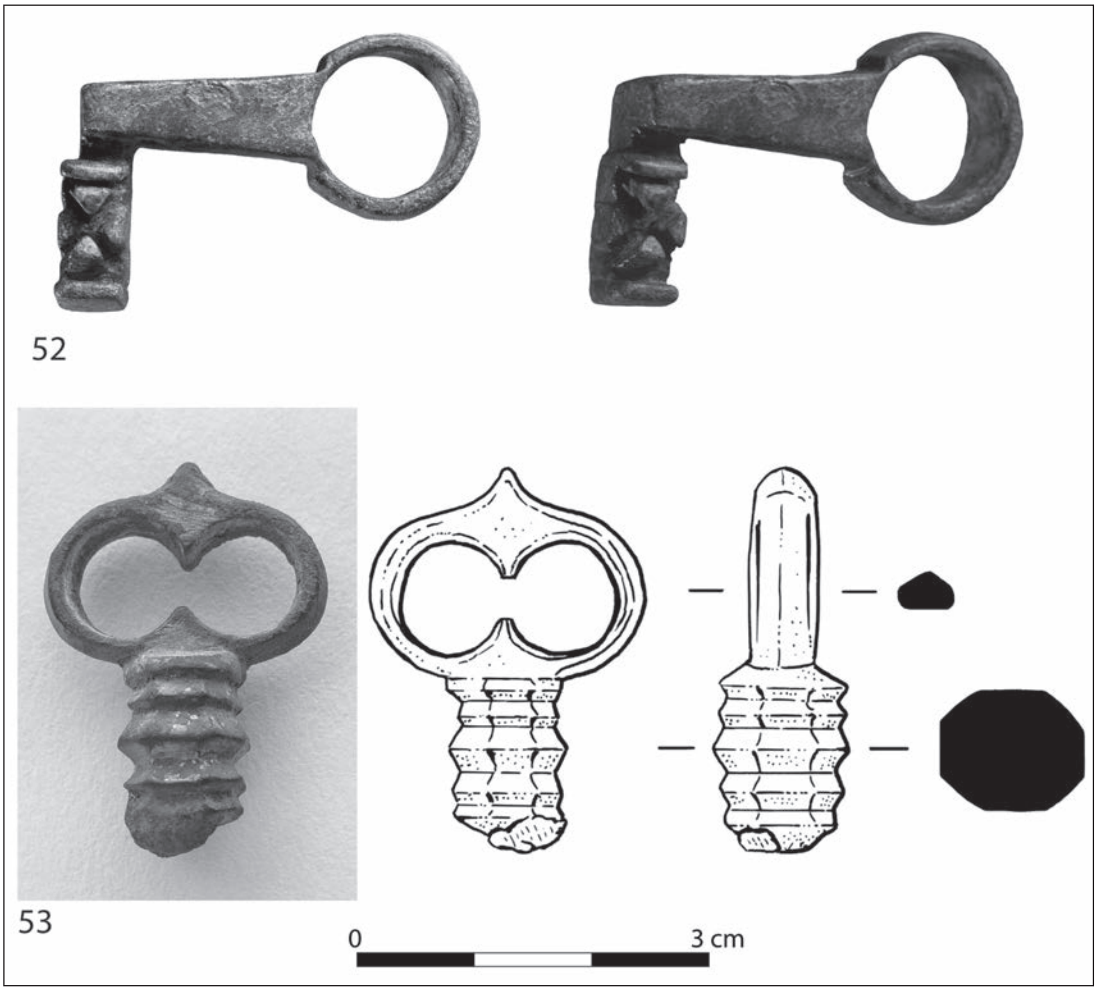


Figure 8.2-30. Small key (Cu alloy cat. no. 52) and probable key handle (Cu alloy cat. no. 53)

Dimensions: length: 32 mm; head: 8 mm; shaft: 3 > 2 mm.
Material: copper alloy
The upper part of a copper pin with biconical head and round-sectioned shaft. Bent and the lower shaft missing. A dress or hair pin. A small copper sticking pin was also found in this context (cat. 51).
Date: probably first half of 6th century.

51). *Small pin* (Fig. 8.2-29)
Context: 1152. Triconch Room 14 (north wing). Phase 8: midden or dump, *c*. AD 525–50.
SF 117.
Dimensions: length: 29 mm; head: 8-6 mm; shaft 3 × 2 > 1.5 × 1 mm.
Material: copper alloy
A complete small pin with sub-spherical head and a square-sectioned shaft tapering to a sharp point. A fragmentary copper dress pin was also found in this context (cat. 50).
Date: probably first half of 6th century.

DOMESTIC ITEMS
52). *Small key* (Fig. 8.2-30)
Context: 1932. Triconch Room 32 (octagonal bath-house vestibule). Phase 3: mortar floor, early 5th century.
SF 2414.
Dimensions: length: 33 mm; diameter of hoop: 14 mm.
Material: copper alloy.
Small key with round hoop, tapering shank and a pattern of projecting triangular tines. This is a casket key with a slide action for a tumbler lock of a type in wide use throughout the Mediterranean basin in late antiquity (Pace 2014 provides a useful introduction to keys and locks from the period. See also Ward 1911, 229–40; Vikan *et al.* 1980**)**. Keys of similar type from 3rd- and 4th-century contexts have been found at Corinth (Davidson 1952, 138, cat. 970-4, pl. 70, and from 7th-century contexts at the Crypta Balbi in Rome (Ricci 2001, 412–13, with reference to further examples).
Date: probably early 5th century.

53). *Small handle, probably from a key* (Fig. 8.2-30)
Context: 4009. Merchant's House Room 38. Phase 15: topsoil, 15th century or later.
SF 2338.
Dimensions: length: 32 mm.; max width: 22; max diameter of collared shaft: 10 mm.

Material: copper alloy.
Probably a key-handle. The upper terminal is in form of a bow coming to an ogee ass's-back point and pieced by a spectacle-shaped perforation. The shaft below is profiled with a series of adjacent collars.
Date: uncertain.

ORNATE ARTEFACTS

54). *Hoof from equestrian statuette*?
Context: 1515. Triconch Room 31 (west wing). Phase 6: mortar bedding layer for surface, mid- to late 5th century.
SF. 777.
Dimensions: 13 × 11 × 8 mm.
Material: copper alloy.
Small sub-circular complex cast form, broken on upper surface; possibly the hoof of an equestrian statuette.
Date: 5th century or earlier.

55). *Foliate suspension/handle attachment* (Fig. 8.2-31)
Context: 5357. Triconch Room 16 (courtyard). Phase 6: silt horizon in southern portico, mid- to late 5th century.
SF 3230.
Dimensions: length: 45 mm; preserved width: 30 mm; thickness: *c*. 1 mm.
Material: copper alloy.
A little plate in the shape of a leaf with a stem curling up and round to form an open-eyed ring/handle; the plate damaged on one side. A complete example, possibly the pair to this, from Butrint, is displayed in the archaeological museum there; its dimensions are 57 × 32 × 1 mm, 16 mm high at the ring**.** This would appear to be a ring suspension plate or handle plate designed to be attached to the side of a vessel. Related examples have been found at Sardis (Waldbaum 1983, 97, cat. 565-7, pl. 36).
Uniform with cat. 58.
Date: probably 5th century.

56). *Decorated strip* (Fig. 8.2-31)
Context: 1415. Triconch Room 21 (south wing). Phase 9: occupation deposit, mid- to late 6th century.
SF 625.
Dimensions: length: 102 mm; width: 6 mm; thickness: 2 mm.
Material: copper alloy.
A complete copper strip, decorated with a line of 14 ring-dots, flanked by little notches on one side, along three-quarters of its length, and with parallel grooves across each terminal. Each end is pierced by a rivet for attachment; the shaft-stubs of these are preserved and one head is discernible, transformed into a ring-dot. Traces of organic binding are preserved in the corrosion at one end. This strip probably formed part of the embellishment and stiffening of a complex luxury artefact constructed of wood, possibly a small coffer.
Date: probably 6th century.

57). *Handle of vessel in the form of a leaping hound* (Fig. 8.2-32)
Context: 3105. Merchant's House Room 40. Phase 10: roof collapse, late 6th to early 7th century.
SF 2492.
Dimensions: 85 × 45 × 15 mm.
Material: copper alloy.
Fine copper figurine of a hunting dog, leaping forward with its head turned 180° to look back over its tail. The dog is stylised, with elongated body and long curling neck ringed by a prominent collar, tall erect ears and a long crescent-shaped muzzle. The rear haunches are massive and terminate in a small conical mount, which served as a base for the figurine. A slender tail falls down over the back of the legs and ends in a curl. The lower section of the front legs has broken away. This is a handle from a copper alloy vessel of some kind.

The context in which the object was deposited and the artefacts found on the same horizon indicate a date in the later 6th century. The handle was found together with a *follis* of Justinian of AD 538/9 and another of Justin II AD 574/5 (See Appendix 6.1 nos 391 and 409), ceramics from the late 5th and late 6th century and a range of other artefacts, including two hooks and a fragmentary bow-fibula (cat. nos 103, 104 and 29), in the collapse of the upper floor, by the threshold at the western end of the 6th-century two-storey building on the Merchant's House site (Room 40).
Date: probably second half of the 6th or early 7th century.

58). *Fragment of foliate suspension/handle attachment* (Fig. 8.2-31)
Context: 3131. Merchant's House Room 39 (courtyard). Phase 13a: cobbled yard or road surface (=3305), early 11th to 12th century (with possibly intrusive later material).
SF 2114.
Dimensions: preserved length: 17 mm; preserved width: 13 mm; thickness: *c*.1 mm; height of handle: 10 mm.
Material: copper alloy.
The curling handle and beginning of the little foliate plate of an artefact uniform with cat. 55.
Date: 11th to 12th century or earlier; probably 5th century.

59). *Fragment of ornamental mount* (Fig. 8.2-31)
Context: 2083. Merchant's House Room 45 (tower). Phase 15: cultivation soil, 15th century or later.
SF 1184.
Dimensions: 21 × 10 × 1.5 mm.
Material: copper alloy.
A finely formed terminal of an elegant ornamental mount. The display-face has rounded contours and is decorated with a ring-dot; the back is plain. Broken at one end.
Date: uncertain, probably late Roman or early medieval

60). *Fragment of a shaped and ornamented arched crest* (Fig. 8.2-33)

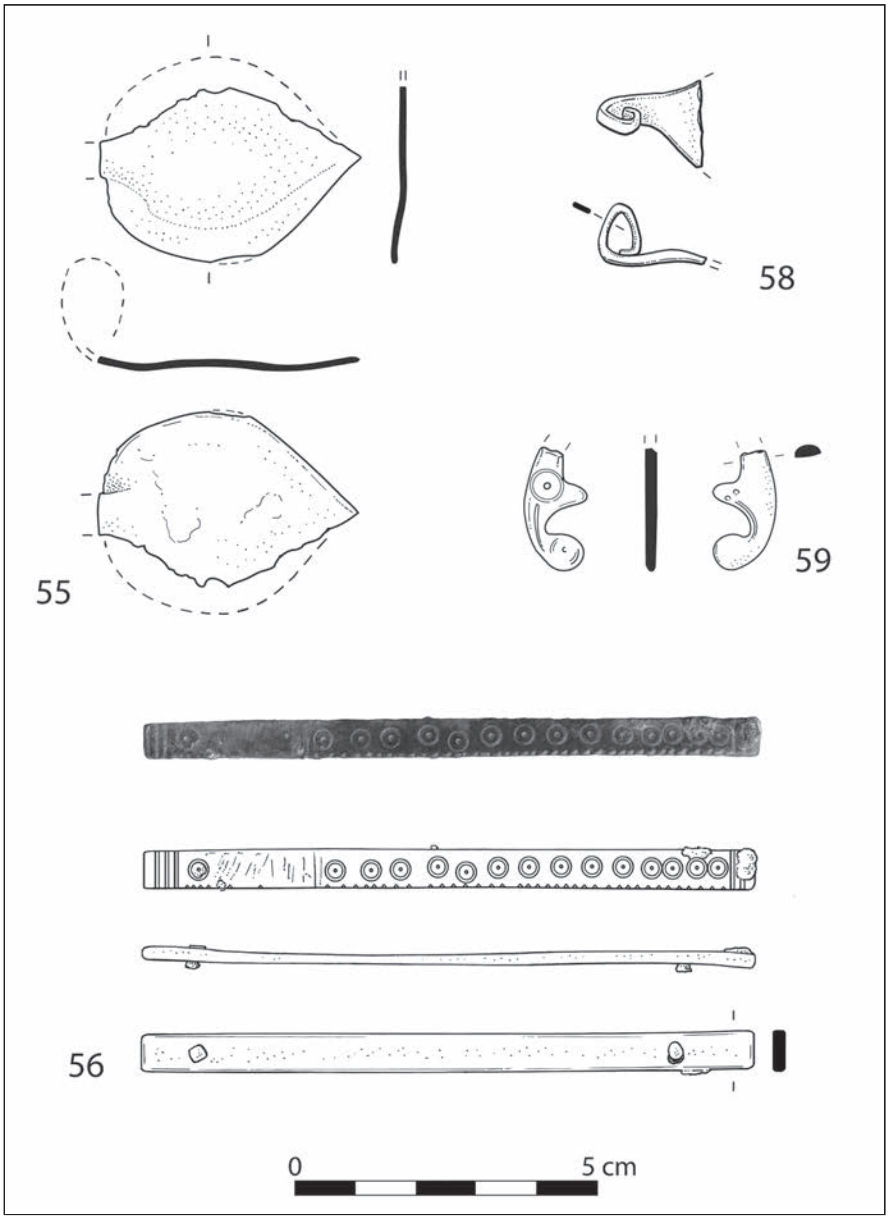


Figure 8.2-31. Two foliate suspension/handle attachments (Cu alloy cat. nos 55 and 58), a decorated strip (Cu alloy cat. no. 56) and a fragment of an ornamental mount (Cu alloy cat. no. 59)

Context: 2083. Merchant's House Room 45 (tower). Phase 15: cultivation soil, 15th century or later.
SF 1190.
Dimensions: length: 37 mm; max width: 7 mm; thickness: less than 1 mm.
Material: copper alloy.
Fragment of an elegantly shaped and decorated arching copper crest. The inner concave contour is plain while the outer convex contour is serrated. One end is waisted as if to form a tiny handle or attachment-point; the other end is broken. The display face is ornamented with a sequence of designed but somewhat irregular incised linear configurations. The back is plain. Function uncertain.
Date: uncertain, probably early medieval.

61). *Two perforated copper strips, one decorated with an incised lattice* (Fig. 8.2-33)
Context: 5348. Triconch (area adjacent to city wall south of Room 11). Phase unknown: fill of undated robber trench.
SF 3216.
Dimensions: a). bent-over length: 58 mm; width: 18 mm; thickness: 1 mm or less.
b). length: 56 mm; width: 18 mm; thickness: 1 mm or less.
Material: copper alloy.
Two small sub-rectangular copper alloy sheets: a). is curled over at one end and is embellished on its display face with an incised rectangular panel with a simple, somewhat irregular reticulate lattice design; b). is plain. Each strip is pierced by two small round holes, one at each end, for

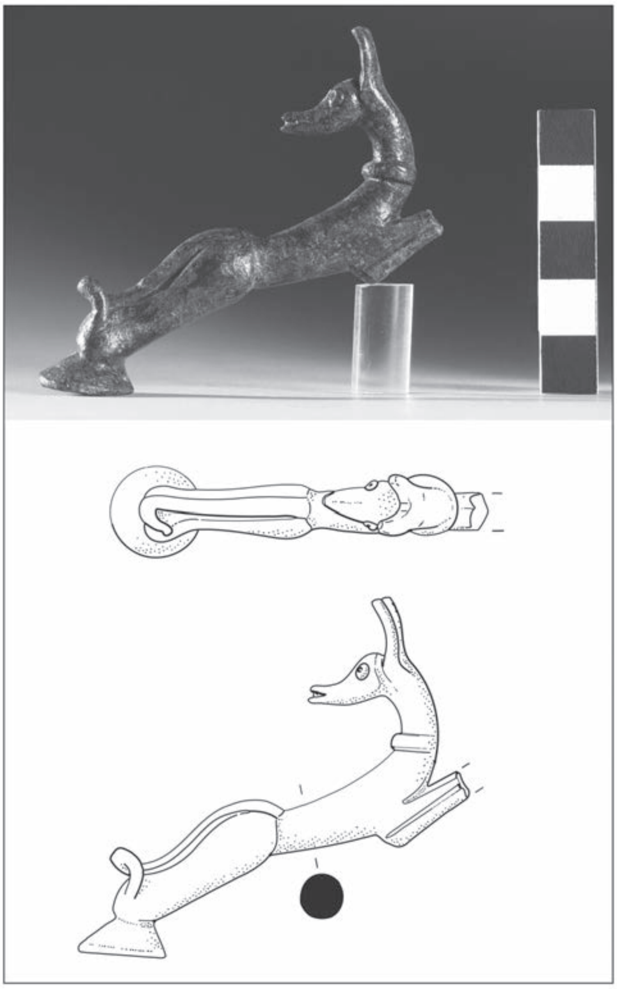


Figure 8.2-32. Fine copper figurine of a hunting dog forming a handle from a copper alloy vessel (Cu alloy cat. no. 57)

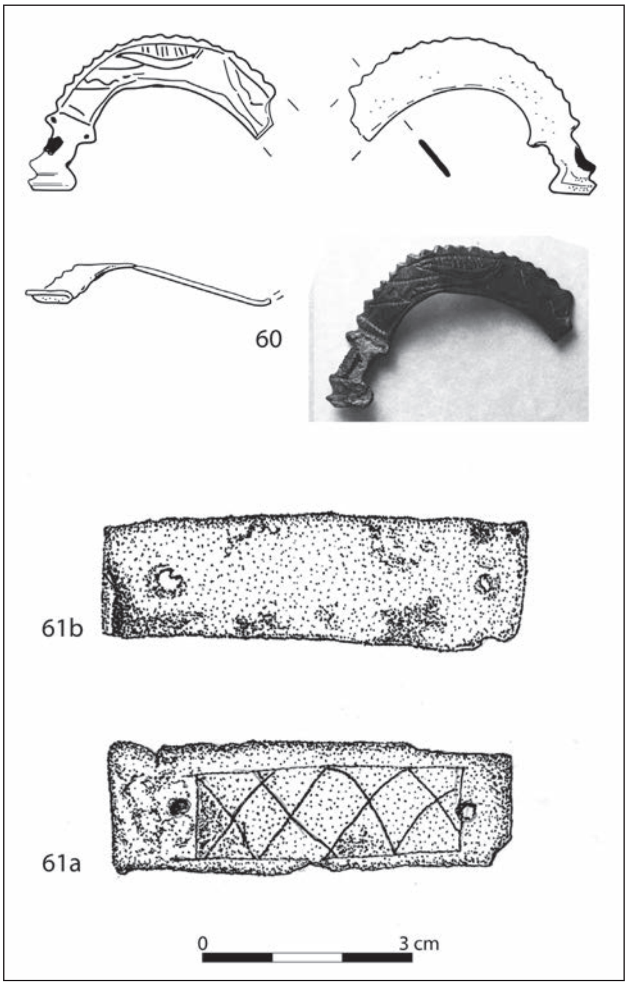


Figure 8.2-33. Fragments of copper alloy decorated ornamental artefacts (Cu alloy cat. nos 60 and 61)

attachment. The precise use of these plaques is unclear. Given their dimensions, it is possible they were designed to be attached to leather straps.
Date: uncertain.

Implements, tools and industrial artefacts

WEIGHTS

62). *Small square 1* nomisma *coin weight* (Fig. 8.2-34)
Context: 1009. Triconch Room 10 (to north of *triclinium*). Phase 2, demolition deposit, 4th century.
SF 496.
Dimensions: 12 × 12 mm; thickness: 4 mm.
Weight: 4 grams.
Material: copper alloy.
A small square 1 *nomisma* coin weight with bezelled sides, with the letter N incised into its display face.

Similar weights have been found at Corinth and Sardis (Davidson 1952, 205, 209, pl. 94 no. 1590; Waldbaum 1983, 86, cat. 471, pl. 29; Bowden 2000 (II), 46), and at the Crypta Balbi, in Rome (Ricci 2001, 342–3, cat. 4.110) and a related weight weighing 12 *nomismata* has been found on the island of Kephalos in Basilica B (Barla-Pallas 1970, 94–7). Little flat square weights of this design were in common use throughout the Byzantine world in late antiquity. For weights of this type, see Bendall 1996, 38, 42–3 no. 103-4.
Date: probably 4th century.

63). *Small square weight* (Fig. 8.2-34)
Context: 3384. Merchant's House Room 39 (courtyard). Phase 8: mortar demolition spread, early to mid-6th century.
SF 2411.
Dimensions: 5 × 5 mm; thickness: 1.25 mm.
Weight: 0.31 grams.
Material: copper alloy.
Tiny square fine-metalsmith's weight, with a B incised into its display surface using a fine point. The bowls of the B are distanced from one another and do not touch.
Date: 6th century or earlier.

64). *Small square 1* nomisma *coin weight* (Fig. 8.2-34)
Context: 3115. Merchant's House Room 40. Phase 10: roof

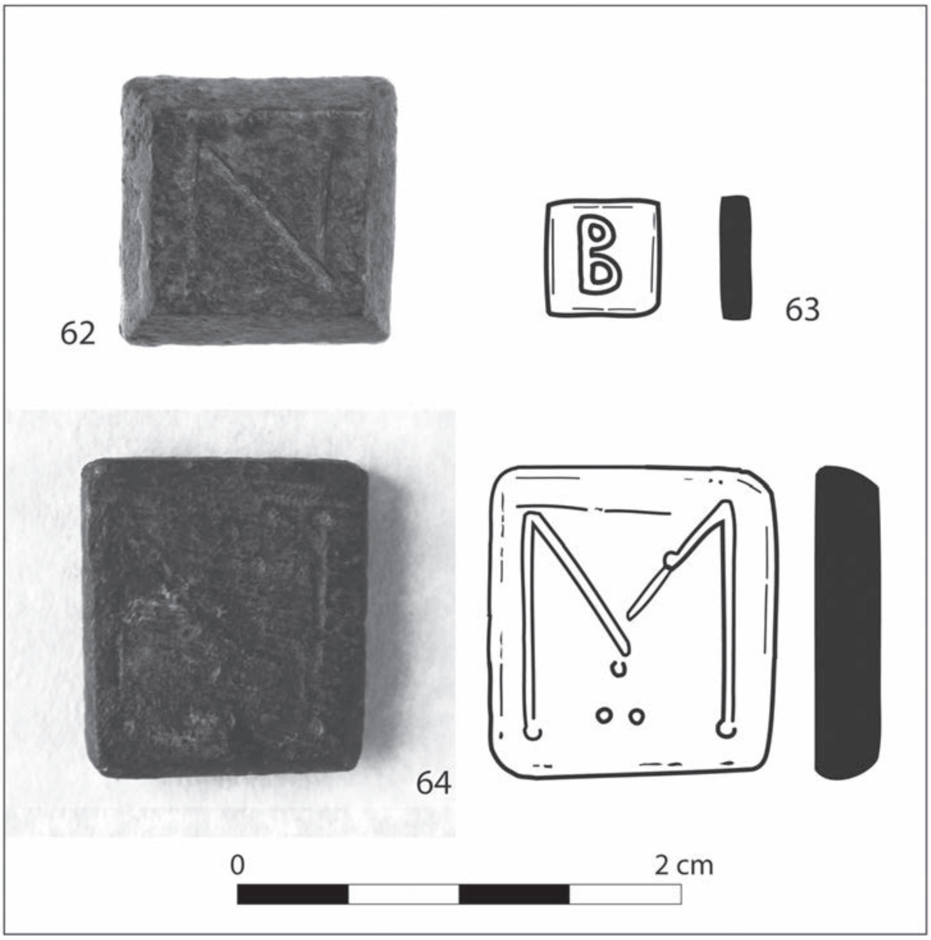


Figure 8.2-34. Small copper alloy weights (Cu alloy cat. nos 62, 63 and 64)

collapse 2492, late 6th to early 7th century.
SF 2049.
Dimensions: 13 × 14 mm; thickness: 2 mm.
Material: copper alloy.
Small rectangular fine-metalsmith's 1 *nomisma* coin weight, with an N incised into its display surface. The edges are bevelled back from the front to the back face. The letter N is in capital form with dot-serifs at the terminals.
Date: late 6th to 7th century.

IMPLEMENTS ASSOCIATED WITH TEXTILE PRODUCTION

65). *Small spindle-whorl* (Fig. 8.2-35)
Context: 1844. Triconch Room 26 (west wing). Phase 6: clay layer beneath Phase 7 roof collapse, mid- to late 5th century?
SF 1025.
Dimensions: diameter: 15.5 mm; height: 11 mm; diameter of perforation: 8 mm.
Material: copper alloy.
A small spindle-whorl with truncated biconical profile; perforated for a spindle-shaft.
Date: 5th century.

66). *Spindle-hook* (Fig. 8.2-35)
Context: 5599. Triconch Room 20 (south wing). Phase 7: rammed clay layer (possible surface), early 6th century.
SF 3279.
Dimensions: length: 47 mm; diameter: 8 > 2 mm; thickness of sheet: less than 1 mm.
Material: copper alloy.
A spindle-hook. Uniform with cat. 68.
Date: probably early 6th century.

67). *Spindle-hook* (Fig. 8.2-35)
Context: 5268. Triconch Room 21 (south range). Phase 9: tile rubble, mid- to late 6th century.
SF 2797.
Dimensions: length: 32 mm; diameter: 7 > 2 mm; thickness of sheet: less than 1 mm.
Material: copper alloy
A spindle-hook. Uniform with cat. 68.
Date: 6th century.

68). *Spindle-hook* (Fig. 8.2-35)
Context: 5362. Triconch Room 16 (courtyard). Phase 9: natural accumulation of silt, mid- to late 6th century.
SF 3213.
Dimensions: length: 36 mm; diameter: 8 > 6 mm; thickness of sheet: less than 1 mm.
Material: copper alloy

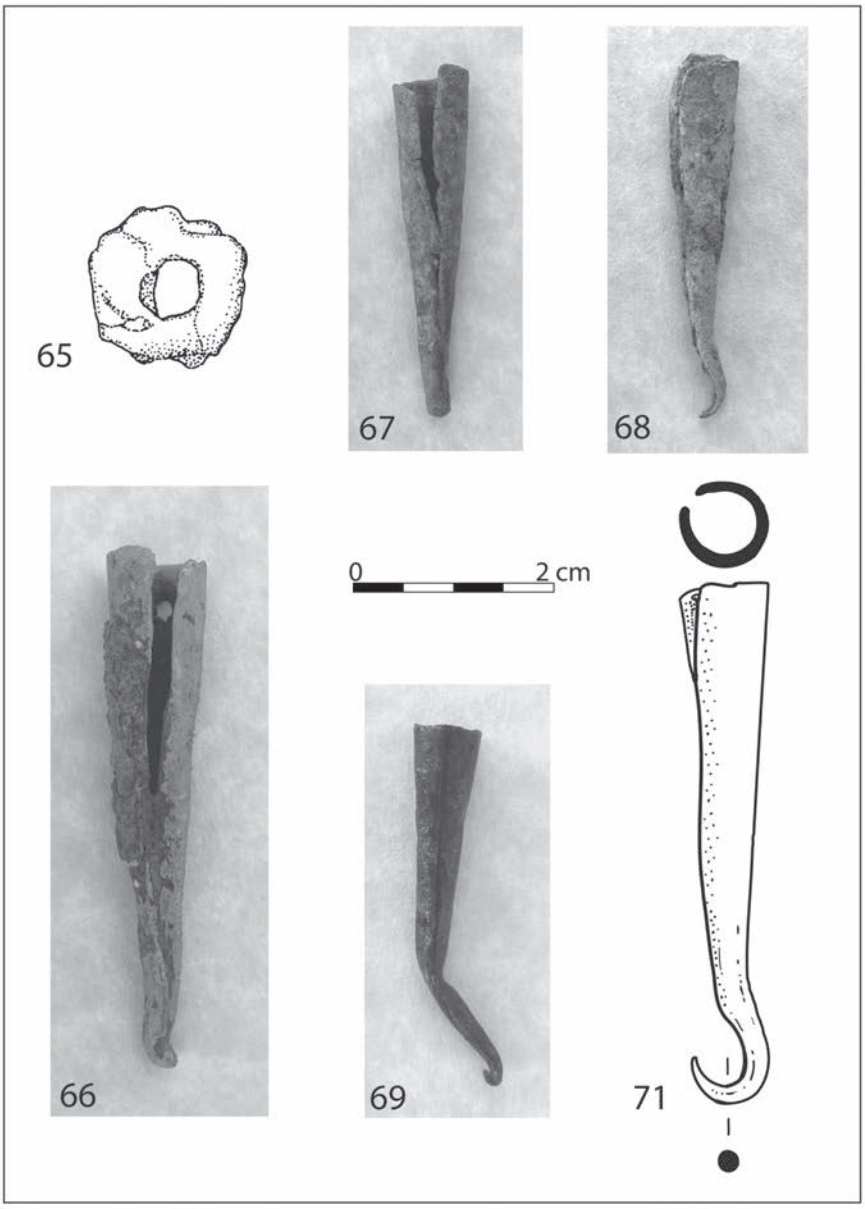


Figure 8.2-35. Spindle-whorl, cat. 65, and spindle-hooks (Cu alloy cat. nos 66, 67, 68, 69 and 71)

Small hollow conical spindle-hook, fashioned from soldered thin copper sheet, terminating in a delicate hook, now broken off. This is designed to be fitted onto the slender wooden or bone shaft of a spindle. A spindle-hook was attached to the top of the spindle, as a guide for the wool as it was drawn from the distaff. Spindle-hooks of this kind were in widespread use throughout the Mediterranean and also in transalpine Europe. Examples have been found at Sarachane in Istanbul (Harrison 1986, 253–4, cat. 404, pl. 352), Anemurium in Isauria, southern Turkey (Russell 1982, fig. 4.32), at Sardis, in Lydia, western Turkey (Waldbaum 1983, 62–3, cat. nos 242–9, pl. 17; Crawford 1990, 62–3, pl. 17.242), in a 3rd-century context in one of the Terrace Houses at Ephesus (Jílek 2005; Trinkl 2007, 84, fig. 13.5), in 7th-century contexts at the Crypta Balbi in Rome (Ricci 2001, 345–6, cat. II.4. 196-215), and elsewhere in the eastern and central Mediterranean, in Italy and in northern Europe, at the Magdalensberg and at Virunum in Kärnten, Austria/Noricum (Gostenčnik 2001, 572, fig. 1; Gostenčnik 2015, 76–7, fig. 14.7), in cemeteries in Slovenia, Poland and Bulgaria (Gostenčnik 2001, 572; *idem*; 2015, 77) .
Date: probably 6th century.

69). *Spindle-hook* (Fig. 8.2-35)
Context: 2073. Merchant's House Room 39 (courtyard). Phase 14a: cultivation soil, 13th to 14th century.
SF 1156.
Dimensions: length: 36 mm; diameter of lower opening: 6 mm; thickness of sheet: less than 1 mm.

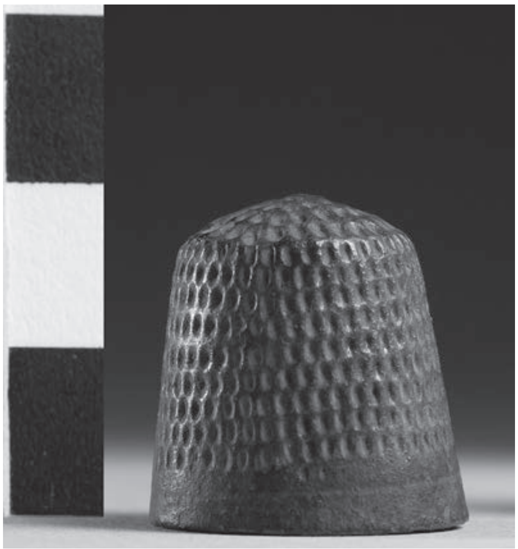


Figure 8.2-36. Copper alloy thimble (Cu alloy cat. no. 70)

Material: copper alloy.
A spindle-hook. Uniform with cat. 68.
Date: 13th to 14th century or earlier; probably 6th century.

70). *Thimble* (Fig. 8.2-36)
Context: 1114. Triconch Room 31 (west wing). Phase 15: unstratified topsoil.
SF 726.
Dimensions: height: 19 mm; present diameter: 18 > 15 mm.
Material: copper alloy.
A well-preserved thimble, with a plain band at the base and then dense stippling in a continuous spiral running up to the apex of the dome.
Date: uncertain.

71). *Spindle-hook* (Fig. 8.2-35)
Context: unstratified. Triconch Room 16 (courtyard).
SF 3190.
Dimensions: length: 50 mm; diameter: 8 mm; thickness of

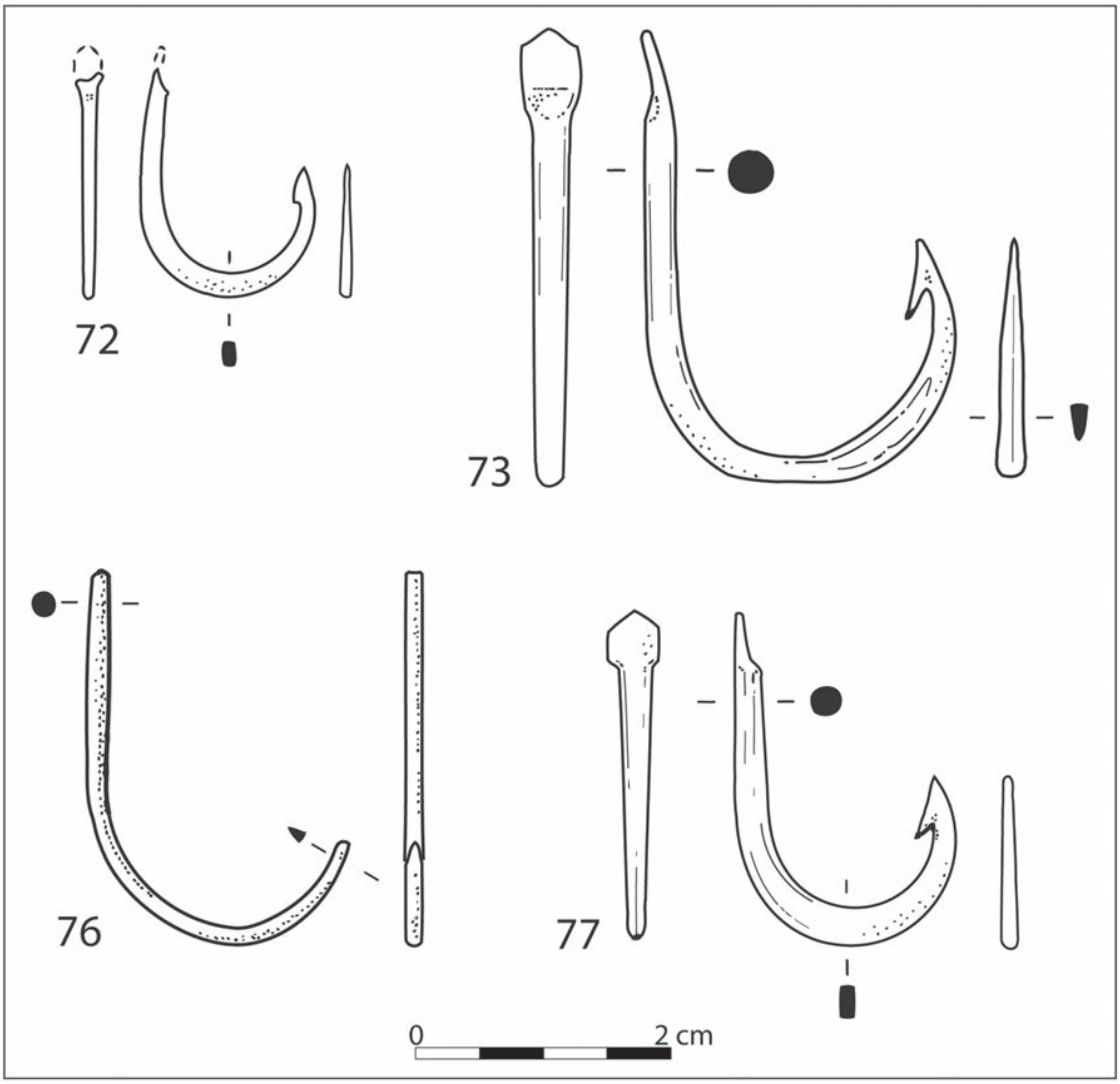


Figure 8.2-37. Fish-hooks (Cu alloy cat. nos 72, 73, 76 and 77)

sheet: less than 1 mm.
Material: copper alloy.
A spindle-hook. Uniform with cat. 68.
Date: probably 6th century.

IMPLEMENTS ASSOCIATED WITH FISHING
72). *Fish-hook* (Fig. 8.2-37)
Context: 4081. Merchant's House Room 41. Phase 7: material post-dating construction of city wall, early 6th century.
SF 2466.
Dimensions: 18 × 14 mm; thickness of wire: *c*. 1 mm.
Material: copper alloy.
Simple fish-hook of copper wire, with barb at the point. Stem broken off at base of terminal flange.
Date: probably early 6th century.

73). *Fish-hook* (Fig. 8.2-37)
Context: 1392. Triconch Room 24 (reception room). Phase 8: dumped tile and building rubble, early to mid-6th century.
SF 693.
Dimensions: 36 × 24 mm; thickness of wire: *c*. 2.5 mm.
Material: copper alloy.
Simple fish-hook of copper wire, with a barb at the point and a flattened sub-circular flange at the end of the stem.
Date: probably early 6th century.

74). *Fish-hook*
Context: 5282. Triconch Room 21 (south wing). Phase 8: layer underlying mussel-shell deposit, early to mid-6th century.
SF 2812.
Dimensions: 18 × 10 mm; thickness of wire: *c*. 1 mm.
Material: copper alloy.
Simple fish-hook of copper wire, with a barb at the point and a flattened round flange at the end of the stem.
Date: 6th century.

75). *Fragment of fish-hook*
Context: 5005. Triconch Room 18 (long gallery). Phase 9: layer sealing industrial activity, mid- to late 6th century.
SF 938.
Dimensions: 17 × 10 mm; thickness of wire: *c*. 1.5 mm.
Material: copper alloy.
Simple fish-hook of copper wire, broken at both ends.
Date: 6th century.

76). *Fish-hook?* (Fig. 8.2-37)
Context: 3325. Triconch (north of) Room 24. Phases 9–10: rubble layer, 6th century?
SF 2175.
Dimensions: height: 30 mm; thickness of wire: *c*. 1 mm.
Material: copper alloy.
A hook-shaped length of stiff copper wire. Broken at both ends. It is possible that this was a fish-hook.
Date: 6th century or earlier.

77). *Fish-hook* (Fig. 8.2-37)
Context: 4001. Merchant's House Room 43. Phase 10: dumping, late 6th to early 7th century.
SF 2465.
Dimensions: 26 × 16 mm; thickness of wire: *c*. 2 mm.
Material: copper alloy.
Simple fish-hook of copper wire, with barb at the point and flattened sub-circular flange at the end of the stem.
Date: probably 6th or early 7th century.

78). *Fragmentary semi-circle of stiff copper wire*
Context: 5069. Triconch Room 18 (long gallery). Phase 10: rubble deposit, late 6th to 7th century.
SF 2396.
Dimensions: diameter: *c*. 21 mm; thickness of wire: 1-2 mm.
Material: copper alloy.
Fragmentary semi-circle, in three joining pieces of stiff copper wire, tapering to one end, possibly from a fish-hook or an earring.
Date: late 6th to 7th century or earlier.

IMPLEMENTS FOR WORKING ON NETS
79). *Netting shuttle* (Fig. 8.2-38)
Context: 5305. Triconch Room 21 (south wing). Phase 7: rubble deposit, early 6th century.
SF 3222.
Dimensions: length: 0.238 m; diameter of shaft: 3.5 mm.
Material: copper alloy.
A netting shuttle, with bifurcated terminals at both ends. At each end the arms of the fork are bent inwards to meet. An implement used in the making and mending of nets, of the same type as cat. 81.
Date: probably early 6th century.

80). *Netting shuttle* (Fig. 8.2-38)
Context: 5006. Triconch Room 23 (south wing). Phase 8: collapse or demolition deposit, early to mid-6th century.
SF 2298.
Dimensions: length: 0.142 m; diameter of shaft: 2 mm.
Material: copper alloy.
Rod with terminal bifurcated at one end in the shape of a pitchfork, with the arms of the fork tending to converge. Probably broken at the plain end. An implement used in the making and mending of nets. Of the same type at cat. 81.
Date: probably first half of 6th century.

81). *Netting-shuttle* (Fig. 8.2-38)
Context: 5004. Triconch Room 18 (long gallery). Phase 9: layer sealing industrial activity, mid- to late 6th century.
SF 2684.
Dimensions: length: 0.263 m; diameter of shaft: 5 mm.
Material: copper alloy.
Rod with bifurcated terminals at both ends, the forks splaying at right-angles to each other. The forks are damaged and the rod is split at one point. The arms of the

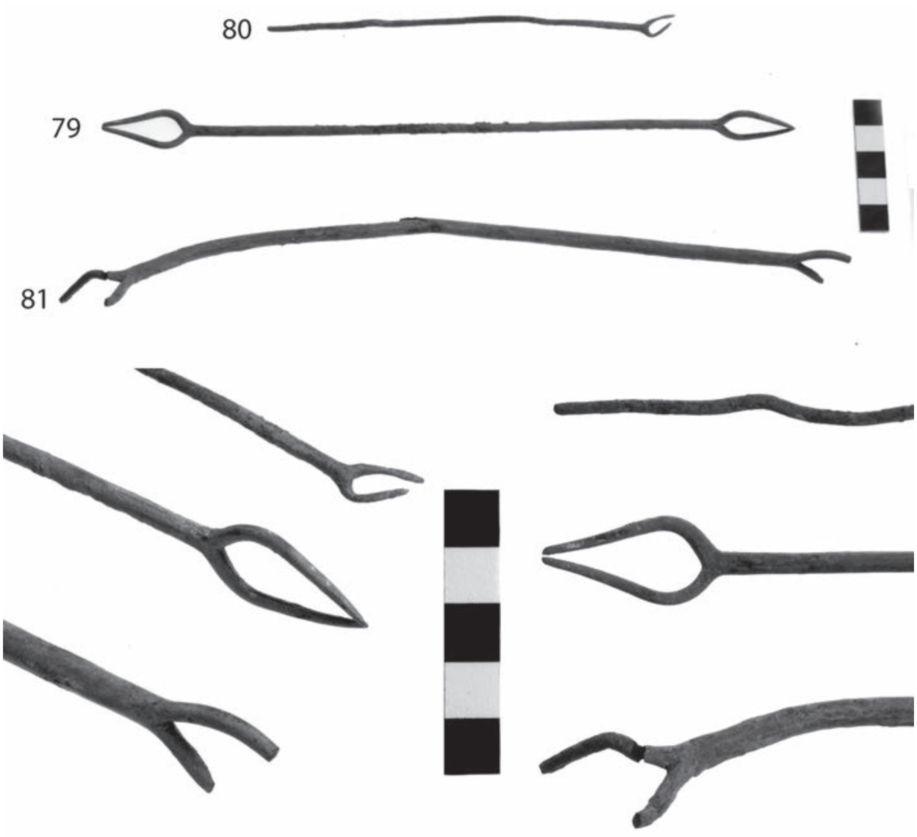


Figure 8.2-38. Netting-shuttles (Cu alloy cat. nos 79, 80 and 81)

forks, although now distorted, seem to have converged. There are no obvious signs of wear on the forks. This is an implement, also known as a netting needle, used in the making and repair of nets. The yarn is wound, end to end, onto the forked shaft, which is then used as a shuttle to create the net. Similar examples have been found in the region, in the Delvina basin (Budina 1971, pl. X, 2) and at Leukas in Greece, where they are on display in the archaeological museum (pers. comm., Kostantinos Zachos).
Date: 6th century.

NEEDLES
82). *Needle* (Fig. 8.2-39)
Context: 5495. Triconch Room 20 (south wing). Phase 10: fill of storage feature, late 6th to early 7th century.
SF 3275.
Dimensions: length: 82 mm; diameter of shaft: 1 > 2 mm.
Material: copper alloy.
A needle, head missing, broken at the perforation.
Date: late 6th to early 7th century or earlier.

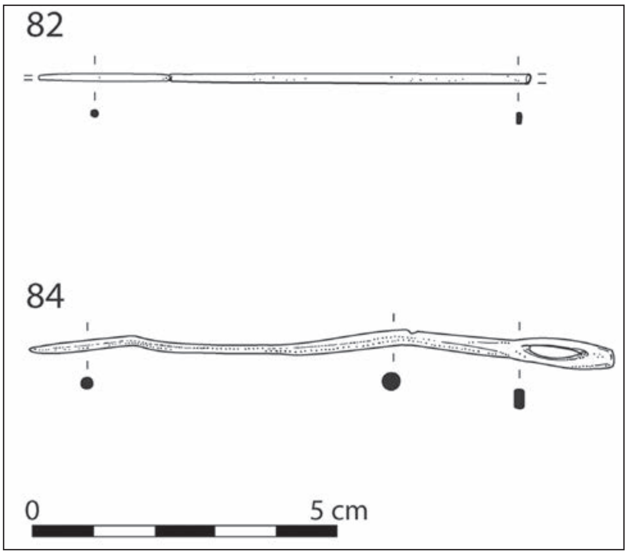


Figure 8.2.39. Copper alloy needles (Cu alloy cat. nos 82 and 84)

83). *Needle or pin*
Context: 5322. Triconch Room 16 (courtyard). Phases 12–13: levelling deposit, early 10th to late 12th century.
SF 3308.
Dimensions: length: 74 mm; diameter of shaft: 2.5 > 1 mm.
Material: copper alloy.
Round-sectioned copper rod, with shaft tapering to a point, probably a needle. The head is missing.
Date: probably 10th to 12th century.

84). *Needle* (Fig. 8.2-39)
Context: unstratified.
SF 3333.
Dimensions: length: 98 mm; diameter of shaft: 4.5 mm

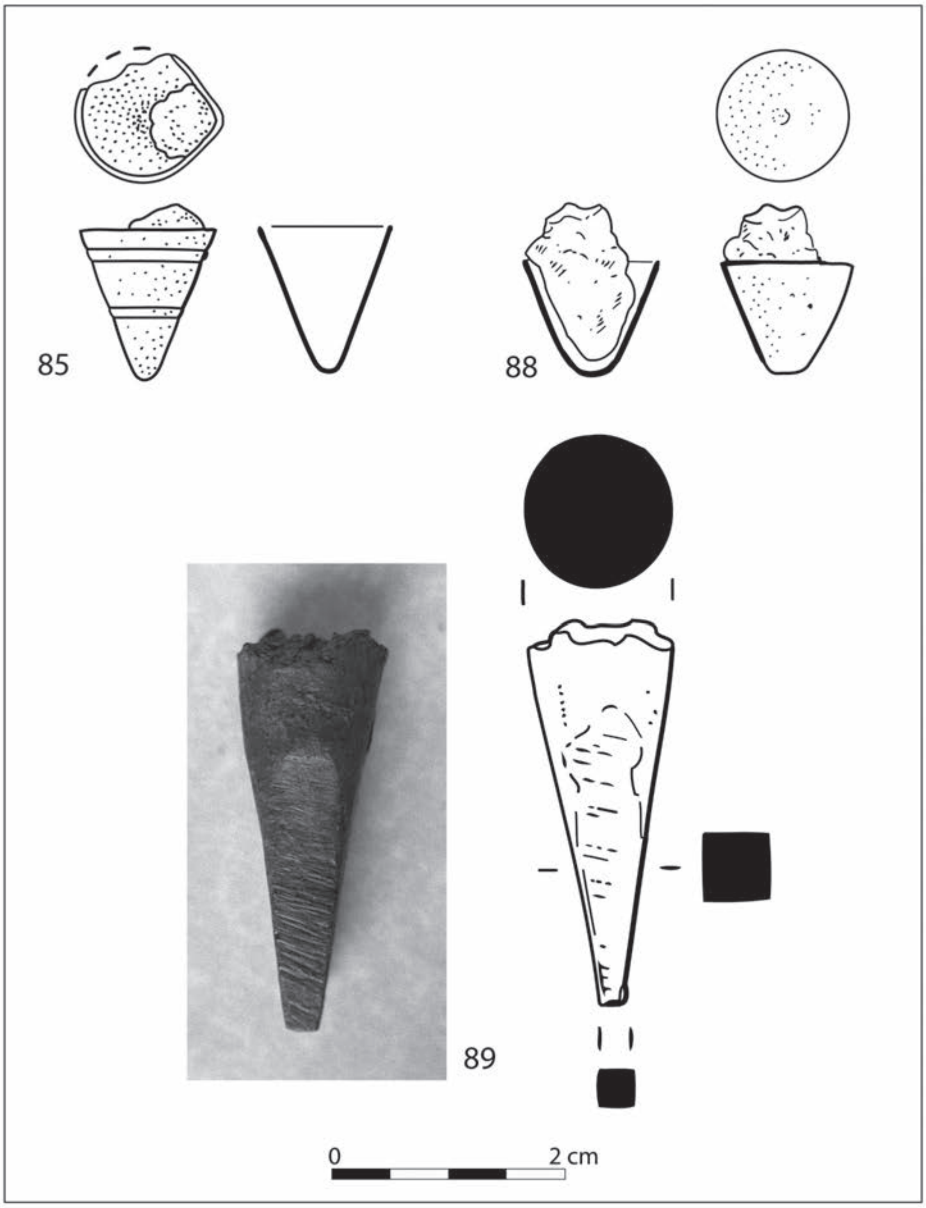


Figure 8.2-40. Copper alloy tools (Cu alloy cat. nos 85, 88 and 89)

tapering to less than 1 mm.
Material: copper alloy.
Complete large needle.
Date: uncertain.

TOOLS
85). *Small hollow conical fitting* (Fig. 8.2-40)
Context: 1009. Triconch Room 10 (to north of *triclinium*). Phase 2, demolition deposit, 4th century.
SF 495.
Dimensions: height: 14 mm; greatest diameter: 11 mm.
Material: copper alloy.
A small hollow cone formed of thin copper sheet, broken off at the base, open at the apex, with two sets of incised circling double lines by way of decoration. Traces of wood and iron are preserved in the hollow interior. This would appear to have been the tip of an implement. Function uncertain. Similar to cat. 88.
Date: probably 4th century
Bibliography: Guest *et al.* 2004, 295, fig. 16.9, cat. 9.

86). *Substantial copper sleeve or cutting ferule* (Fig. 8.2-41)
Context: 3240. Triconch Room 22 (south wing). Phase 5: occupation level, early to mid-5th century
SF 2103.
Dimensions: 80 × 22 × 16 mm; thickness of metal: *c*. 2 mm.
Material: copper alloy.
Substantial three-sided sleeve of copper alloy, perhaps a cutting ferule, shaped to form concave tongues at either end, the sides bent over on the slope to accommodate a rectangular wooden haft or handle. One tongue is longer

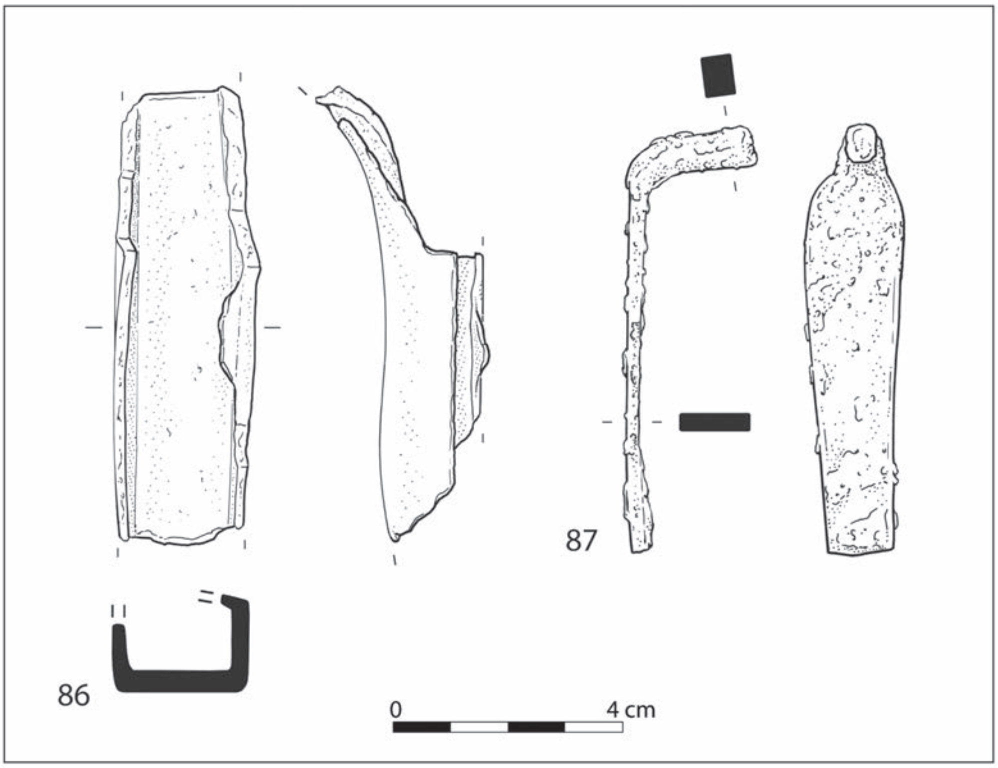


Figure 8.2-41. Copper alloy tools (Cu alloy cat. nos 86 and 87)

than the other and may have formed a cutting edge. Found in association with cat. 46.
Date: 5th century.

87*). Fragmentary spatulate implement* (Fig. 8.2-41)
Context: 3361. Triconch Room 26 (west wing). Phase 5: deposit associated with kiln, early to mid-5th century (AD 420–50).
SF 2179.
Dimensions: length: 71 mm; max width: 15 mm; max thickness: 3 mm.
Material: copper alloy.
Spatulate implement with flat, narrow, somewhat tapering blade and round-sectioned handle or tang rising up at steep angle at one end. The end of the blade is broken off.
Date: probably first half of 5th century.

88). *Small hollow conical fitting* (Fig. 8.2-40)
Context: 5409. Triconch Room 29 (west wing). Phases 5–6: silt layer sealing post-holes, AD 400–50.
SF 3167.
Dimensions: height: 12 mm; max diameter: 12 mm.
Material: copper alloy.
A small hollow cone formed of thin copper sheet. Traces of corroded material from the original support in the interior. The tip of an implement of some kind. Function uncertain. Similar to cat. 85 (Guest *et al.* 2004, 295, cat. 9).
Date: First half of 5th century or earlier.

89). *Pyramidal spike or punch* (Fig. 8.2-40)
Context: 1152. Triconch Room 14 (north wing). Phase 8: midden or dump, *c*. AD 525–50.
SF 86.
Dimensions: length: 37 mm; max diameter: 13 mm; sides of point: 3 mm.
Material: copper alloy.
The broken-off end of a conical implement, fashioned of solid copper alloy, which tapers to a square-sectioned point. This is possibly a punch.
Date: probably early 5th century.

90). *Shaped and perforated triangular scoop* (Fig. 8.2-42)
Context: 1545. Triconch Room 25 (west wing). Phases 9–10: demolition layer extending over whole room, mid- to late 6th century.
SF 951.
Dimensions: length: 33 mm; preserved width: 9–2 mm; thickness: less than 1 mm.
Material: copper alloy.
A small sub-triangular sleeve of copper sheet, curled over along part of the long sides to form a sleeve at the apex, and perforated with a little round nail-hole in the middle for attachment. Apparently designed to be slipped over and fixed to a slender wooden rod as a handle. Function uncertain; possibly designed to serve as some kind of light paddle or scoop. Of the same type as cat. 91 and cat. 94.
Date: probably 6th century.

91). *Shaped and perforated triangular scoop* (Fig. 8.2-42)
Context: 1545. Triconch Room 25 (west wing). Phases

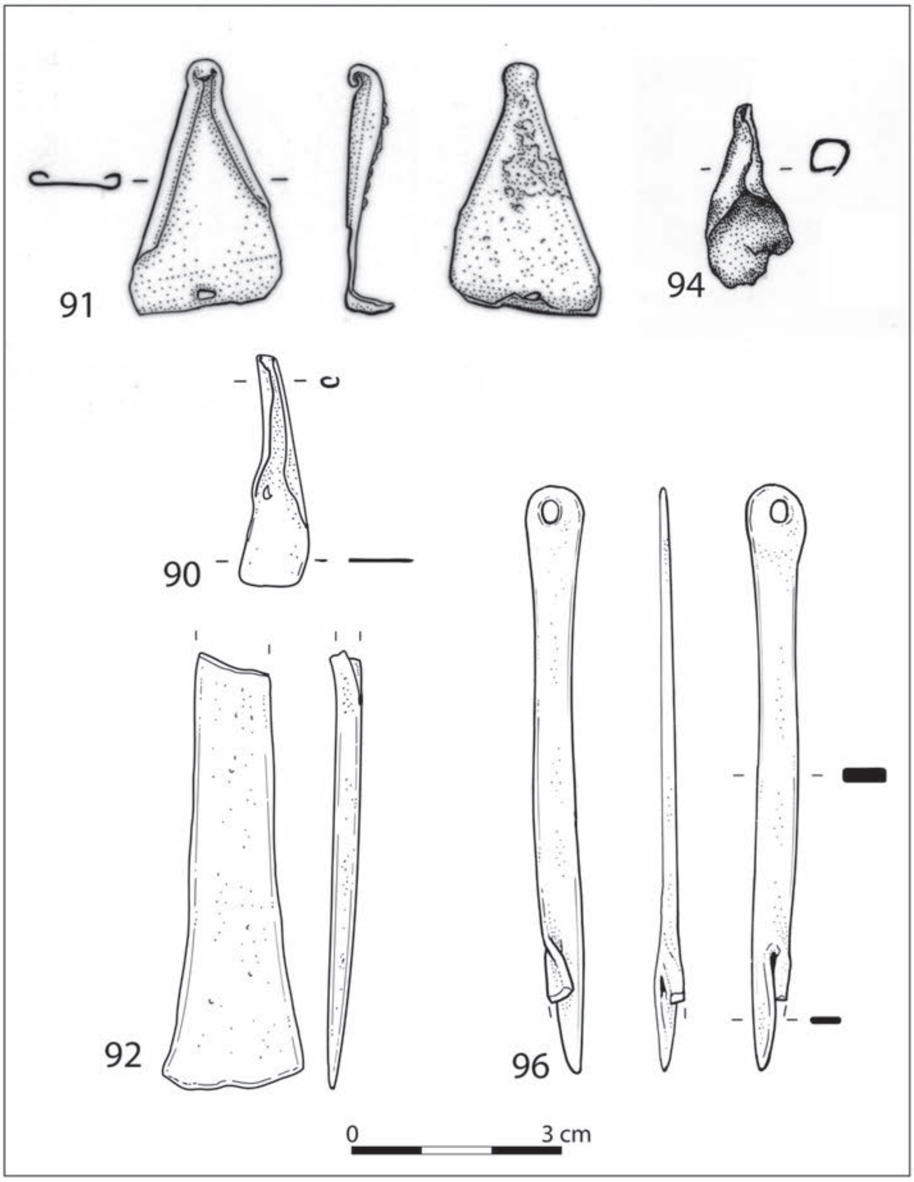


Figure 8.2-42. Copper alloy scoops (Cu alloy cat. nos 90, 91 and 94), probable cutting tool (Cu alloy cat. no. 92 and implement (Cu alloy cat. no. 96)

9–10: demolition layer extending over whole room, mid- to late 6th century.
SF 1019.
Dimensions: length: 36 mm; width: 22–4 mm; thickness: less than 1 mm.
Material: copper alloy.
A small sub-triangular sleeve of copper sheet, curled over along part of the long sides to form a sleeve at the apex, perforated with a little round nail-hole in the middle of the short side. Apparently designed to be slipped over and fixed to a slender wooden shaft. Function uncertain; possibly designed to serve as some kind of light paddle or scoop. Of the same type as cat. 90 and cat. 94.
Date: probably 6th century.

92). *Tool with convex splayed blade* (Fig. 8.2-42)
Context: 5331. Triconch Room 29 (west wing). Phase 10: make-up for mortar surface, late 6th to early 7th century.
SF 3042.
Dimensions: length: 63 mm; width: 10–20 mm; thickness: 1–3 mm.
Material: copper alloy.
Length of copper strip, splayed at one end and tapering at the other. Broken off at the narrower end. The splayed end is convex and has a sharp edge, indicating that the artefact was designed as a cutting tool of some kind.
Date: probably 6th century.

93). *Tapering copper rod – possibly a tool*
Context: 3304. Merchant’s House Room 39 (courtyard) Phase 13a: cobbled yard or road surface, early 11th to 12th century.

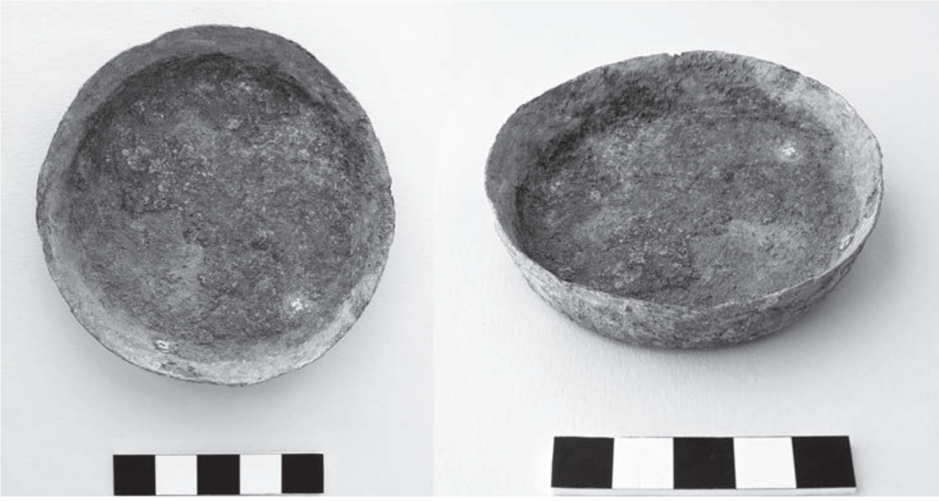


Figure 8.2.43. Copper alloy pan (Cu alloy cat. no. 97)

SF 2196.
Dimensions: length: 37 mm; section: 5 × 3 > 1 mm.
Material: copper alloy.
Short length of flat-sectioned rod, tapering to a blade at one end; possibly a tool.
Date: 11th to 12th century.

94). *Small triangular scoop* (Fig. 8.2-42)
Context: 3029. Merchant's House Room 40. Phase 14a: cultivation soil, 13th to 14th century.
SF 2119.
Dimensions: length: 27 mm; max with: 14 mm; thickness: <1 mm.
Material: copper alloy.
A small sub-triangular conical sleeve, formed from thin copper sheet, for attachment to a slender wooden shaft; no perforation visible. Of the same type as cat. 90 and cat. 91.
Date: uncertain, 13th to 14th century or earlier.

95). *Blade of tool*
Context: 3091. Merchant's House Room 40. Phase 14a: cultivation soil (?), 13th to 14th century.
SF 2031.
Dimensions: length: 30 mm; width: 19 mm; thickness: 3>1 mm.
Material: copper alloy.
Slightly splayed blade of tool, splaying to a working/cutting edge; fractured at upper end.
Date: uncertain, 13th to 14th century or earlier.

96). *Slender implement with birfurcated terminal* (Fig. 8.2-42)
Context: 1114. Triconch Room 10 (room to north of *triclinium*). Phase 15: unstratified topsoil.
SF 679.
Dimensions: length: 88 mm; width: 6 mm; thickness: less than 1 mm.
Material: copper alloy.
A copper strip slightly waisted towards one end and then expanding gently to a rounded terminal, where it is perforated by a round hole. The other end was bifurcated, to form an operative terminal, now broken. Function unclear.
Date: uncertain.

VESSEL

97). *Copper pan* (Fig. 8.2-43)
Context: 3264. Triconch Room 26 (west wing). Phase 5: layer beneath trample surface (3339), early to mid-5th century.
SF 2118.
Dimensions: diameter at lip: 77 mm; diameter at base: 68 mm; height: 16 mm.
Material: copper alloy.
Round copper pan, with flat base and slightly splayed sides. Possibly designed for some industrial purpose.
Date: probably 5th century.

BELLS

98). *Fragmentary bell for domestic animal*
Context: 1676. Triconch Room 18 (long gallery). Phase 9: layer sealing industrial activity, mid- to late 6th century.
SF 950.
Dimensions: preserved height: 85 mm; preserved width: 60 mm; thickness of sheet: 2–3 mm.
Material: copper alloy.
Large fragment of bell for a domestic animal, preserving the overall profile and height of the bell, and seven associated fragments.
Date: 6th century.

99). *Bell for a small domestic animal*
Context: 5331. Triconch Room 29 (west wing). Phase 10: make-up for mortar surface, late 6th to early 7th century.
SF 3065.
Dimensions: preserved height: 90 mm; width: 70–80 mm; max depth: 36 mm; thickness of sheet: *c*. 1 mm.

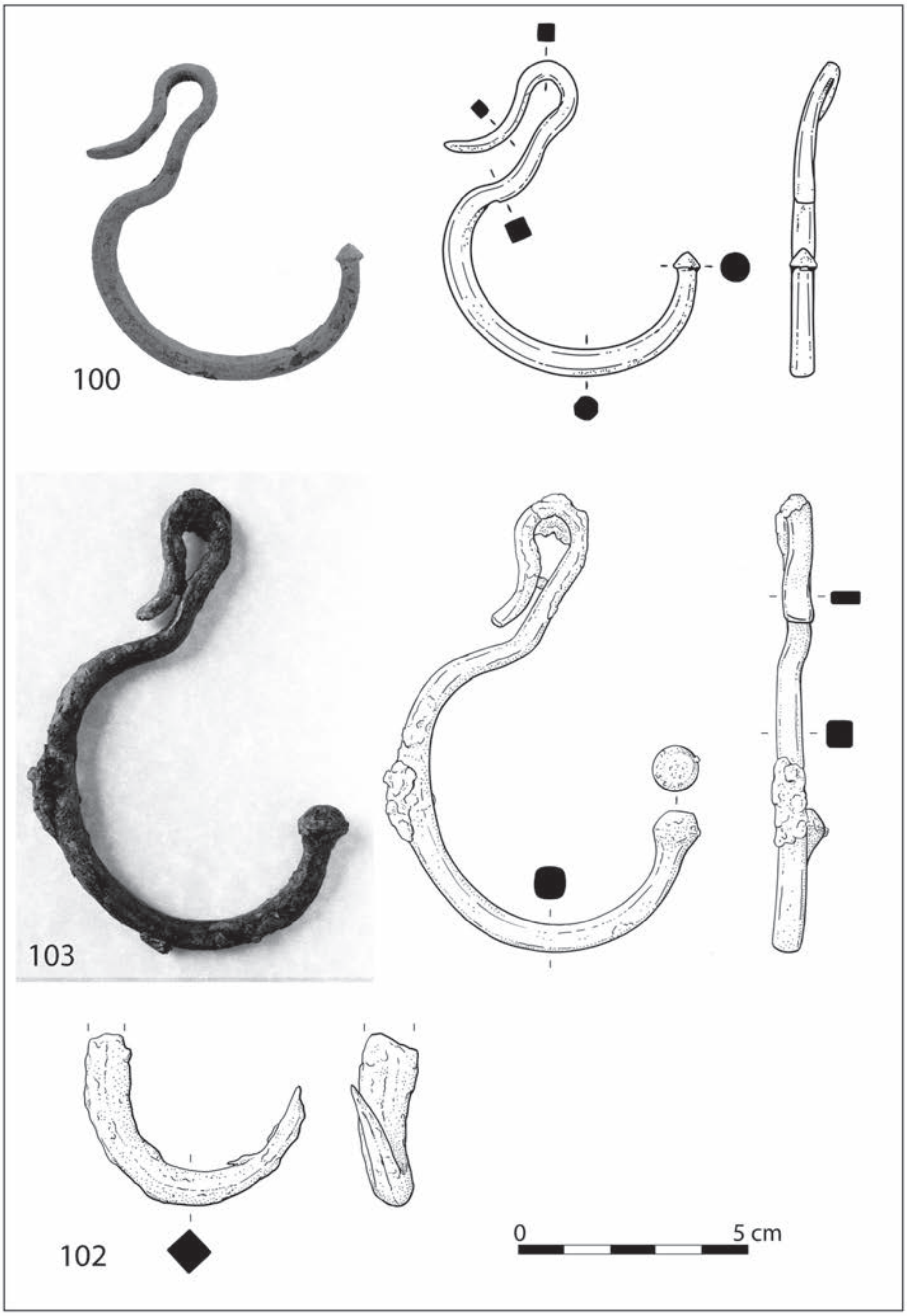


Figure 8.2-44. Copper alloy hooks (Cu alloy cat. nos 100, 102 and 103)

Material: copper alloy.
Copper bell, quadrilateral with narrow ends slightly splaying out from top to bottom, with strap handle for suspension at the neck of a domesticated animal. The corroded remains of the iron clapper are preserved inside. Broken and fragmenting at lower edge.
Date: probably 6th or early 7th century.

HOOKS
100). *Large steelyard-balance hook* (Fig. 8.2-44)
Context: 5364. Triconch Room 29 (west wing). Phase 6: rubble levelling layer, mid- to late 5th century.
SF 3153.
Dimensions: height: 72 mm; width: 61 mm; diameter of rod: 4–5.5 mm.
Material: copper alloy.
A large steelyard-balance hook with swan's-neck suspension loop at top and terminating at the other end in a little conical knob. The body of the hook is polygonal in section, that is sub-circular and facetted. The upper end is somewhat distorted. Uniform in type with cat. 103 but somewhat smaller.

Steelyard hooks of a similar type have been found at Sardis (Waldbaum 1983, 80–2, cat. 435–45, pls 28–9, especially cat. 445; Crawford 1990, 56, 58, 84, 86, 88, 92, 94, figs 235–6, 413, 476, 523; Harris 2004, fig. 4.13)

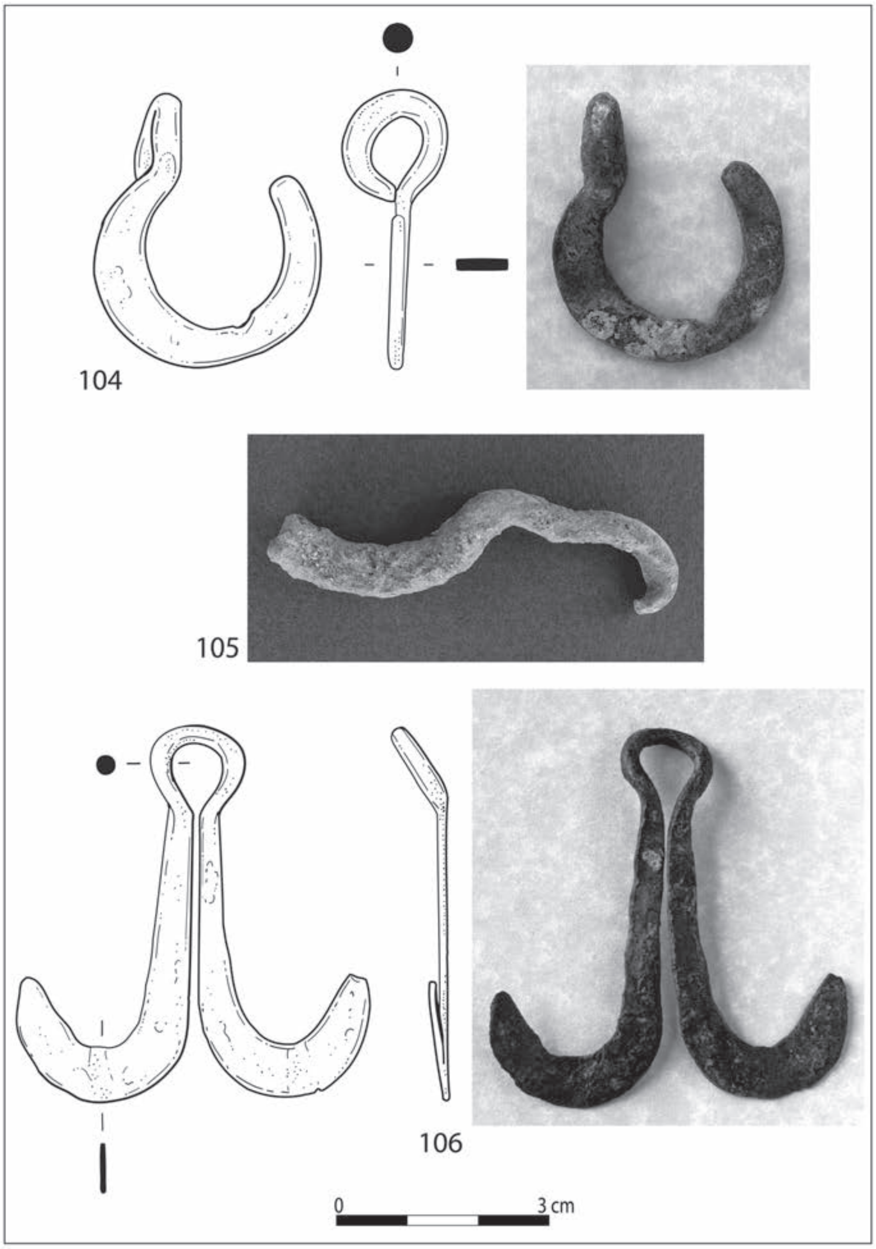


Figure 8.2-45. Copper alloy hooks (Cu alloy cat. nos 104, 105 and 106)

and an exact parallel has been found in the excavation of 6th-century warehouse in the port of Classe, near Ravenna (pers. comm., Richard Hodges, exhibited in the exhibition, *Felix Ravenna*, Ravenna, Complesso di San Nicolo, March–October 2007). See also Weitzmann 1979, 345, no. 328. For the use of hooks of this type on steelyard-balances, see Waldbaum 1983, 80.
Date: probably 5th century.

101). *Small hook*
Context: 1676. Triconch Room 18 (long gallery). Phase 9: layer sealing industrial activity, mid- to late 6th century.
SF 927.
Dimensions: 23 × 11 mm; thickness of wire: 1–2 mm.
Material: copper alloy.
A small hook; the stem broken off.
Date: probably 6th century.

102). *Curling copper alloy hook/horn-shaped artefact* (Fig. 8.2-44)
Context: 5362. Triconch Room 16 (courtyard). Phase 9: natural accumulation of silt, mid- to late 6th century.
SF 3209.
Dimensions: 45 × 39 mm; section: 12 × 9 > 1 × 1 mm.
Material: copper alloy.
Curling copper horn-shaped artefact/hook, with twisting sub-square section, tapering to a point. Some surface corrosion.
Date: 6th century or earlier.

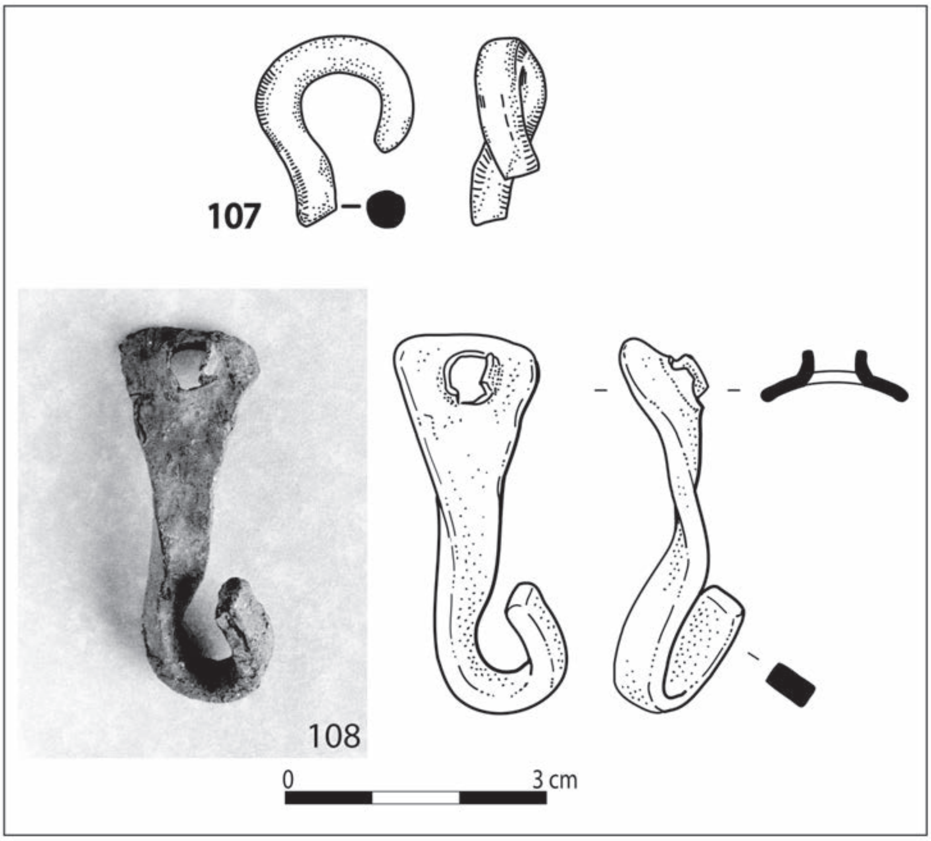


Figure 8.2-46. Copper alloy hooks (Cu alloy cat. nos 107 and 108)

103). *Large steelyard-balance hook* (Fig. 8.2-44)
Context: 3105. Merchant's House Room 40. Phase 10: roof collapse, late 6th to early 7th century.
SF 2045.
Dimensions: height: 100 mm; width: 70 mm; diameter of rod: 5–6 mm.
Material: copper alloy.
Large steelyard-balance hook with swan's-neck suspension loop at top and terminating at the other end in a collared knob. Uniform in type with cat. 100, but somewhat larger.
Date: probably late 6th to early 7th century.

104). *Small hook* (Fig. 8.2-45)
Context: 3105. Merchant's House Room 40. Phase 10: roof collapse, late 6th to early 7th century.
SF 2563.
Dimensions: height: 41 mm; outer diameter of hook: 34 mm; inner diameter: 20 mm.
Material: copper alloy.
Small hook with a looped attachment-ring twisted at right-angles to the hook. The rod out of which the hook is fashioned is 4 mm in diameter. In the bow of the hook this has been hammered out to a thickness of a little less than 2 mm.
Date: probably 6th or early 7th century.

105). *Small distorted hook* (Fig. 8.2-45)
Context: 5331. Triconch Room 29 (west wing). Phase 10: make-up for mortar surface, late 6th to early 7th century.
SF 3058.
Dimensions: length: 57 mm; shaft: 7 × 6 > 4 × 1.5 mm.
Material: copper alloy.
A small hook, the stem bent and distorted and broken off.
Date: probably late 6th to early 7th century.

106). *Double 'hook'* (Fig. 8.2-45)
Context: 3059. Merchant's House Room 39 (courtyard): Phase 14a: humic soil, 13th to 14th century.
SF 2011.
Dimensions: 55 × 52; section of bar: 1–4 mm.
Material: copper alloy.
Copper bar beaten and twisted into a double 'hook' with flat hooks and shanks and round-sectioned upper loop for suspension. The loop is at present bent at a slight angle to the hooks below. The function is unclear.
Date: 13th to 14th century or earlier.

107). *Small hook* (Fig. 8.2-46)
Context: 2094. Merchant's House Room 39 (courtyard). Phases 14–15: cultivation soil, 14th century or later.
SF 1192.
Dimensions: 18 × 14 mm; thickness of rod: 3.5 mm.
Material: copper alloy.
A small hook, the stem broken off.
Date: uncertain, 14th century or earlier?

108). *Small hook* (Fig. 8.2-46)
Context: 3280. Triconch Room 30 (west wing). Phase 15 or later: topsoil.
SF 2134.
Dimensions: 42 × 15 mm; thickness: 1–3 mm.
Material: copper alloy.
A small hook with a triangular base pierced by a rectangular perforation for attachment.
Date: uncertain.

CHAINS

109). *Fragment of chain* (Figs 8.2-47 and 48)
Context: 3257. Triconch Room 26 (west wing). Phase 5: levelling deposit, *c.* AD 425–50.
SF 2133.
Dimensions: Overall length 89 mm × 42 × 21 mm (corroded); each link – length: 35 mm, width: 17 mm; diameter of rings: 3–5 mm
Material: copper alloy.
Length of corroded copper chain consisting of five links. Each link consists of a two-ringed configuration, the rings twisted at right angles to each other.
Found in association with a copper ring (cat. 115) and an iron rod (Iron cat. 19)
Date: probably first half of 5th century.

110). *Small hook on ring and fragments of lamp-chain?*

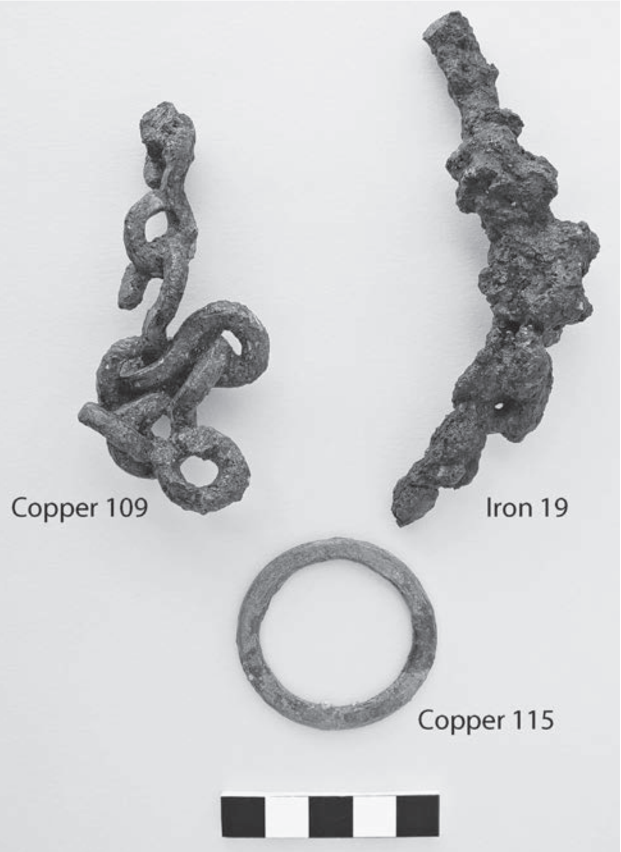


Figure 8.2-47. (above) Copper alloy chain (Cu alloy cat. no. 109) and ring (Cu alloy cat. no. 115), and iron rod (Fe cat. no. 19) found together

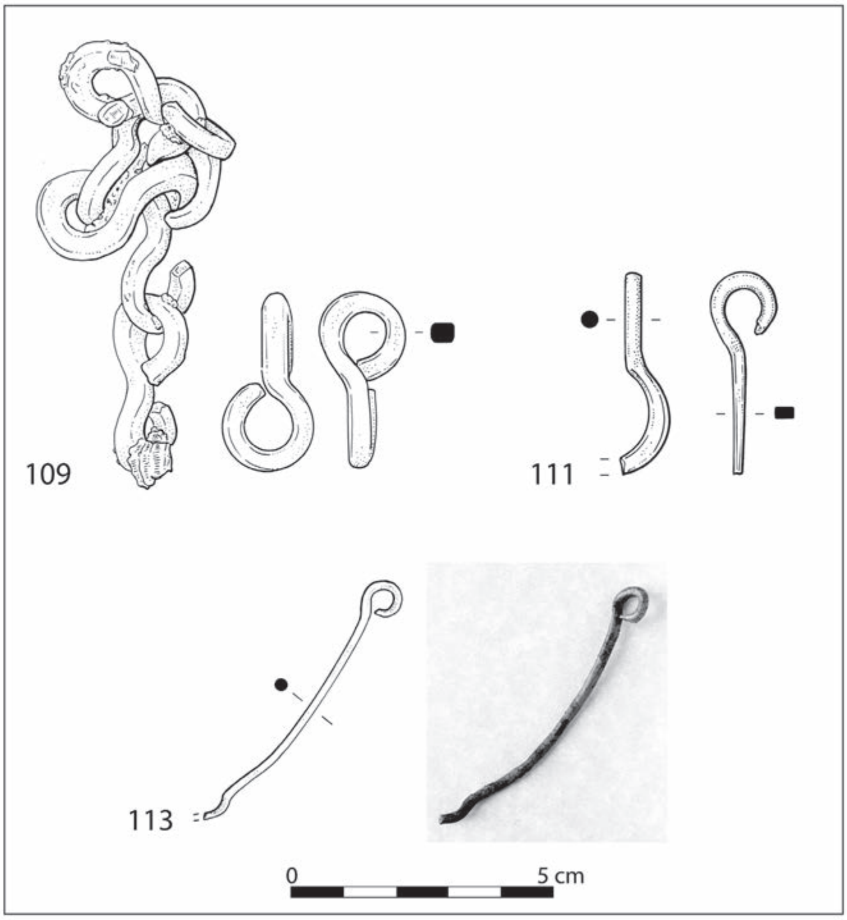


Figure 8.2-48. (right) Copper alloy chain links (Cu alloy cat. nos 109, 111 and 113)

Context: 4018. Merchant's House Room 37. Phase 6: occupation deposit, *c*. AD 460–75.
SF 2424.
Dimensions: Hook: 27 × 15 mm (max); section of wire: 1.5/2 × 1.5/2 mm; diameter of ring: 9 mm.
Associated fragments of copper wire; dimensions: lengths: 20, 12, 10, 10, 8, 7, 7, 4 and 2 mm.
Material: copper alloy.
A delicate hook fashioned from square-sectioned wire, terminating in a small loop which passes through a corroded small copper ring. The hook was found with nine small fragments of copper wire fragments. Possibly from a lamp-chain.
Date: probably mid-5th century.

111). *Broken link from chain* (Fig. 8.2-48)
Context: 1475. Triconch Room 24 (reception room). Phase 8: deposit associated with furnace in apse, early to mid-6th century.
SF 700.
Dimensions: length: 37 mm; thickness of wire: 2 mm.
Material: copper alloy.
Link from a chain with loops set at right-angles to one another, possibly from a lamp; one loop is broken off at its mid-point.
Date: early to mid-6th century.

112). *Fragment of wire link*
Context: 5001. Triconch Room 19. Phase 14 or later: deposit overlying circular stone structure, 13th to 14th century or later.
SF: none.
Dimensions: length: 20 mm; section: 1.5 × 1.5 mm.
Material: copper alloy.
Fragment of copper wire, bent to form a loop at one end; broken at the other. Probably a link from a wire chain, possibly from a lamp.
Date: uncertain.

113). *Short length of copper wire curled to a round eye at one end, possibly from a lamp-chain* (Fig. 8.2-48)
Context: 1114. Triconch Room 21 (south wing). Phase 15: unstratified topsoil.
SF 568.
Dimensions: length: 59 mm; thickness of wire: 1.5 mm.
Material: copper alloy.
Short length of round-sectioned copper wire, bent to a gentle curve and curled over into a round eye at one end. Possibly from a lamp-chain.
Date: uncertain, possibly late Roman.

RINGS
114). *4 fragments of ring*
Context: 4100. Merchant's House Room 37. Phases 3–5: collapsed *pisé* wall or floor make-up, early 5th century.
SF 2535.
Dimensions: thickness of wire: 3–3.5 mm; lengths of fragments: 20, 20, 17 and 12 mm.
Material: copper alloy.
Four fragments from a curved length of round-sectioned rod, possibly from a large ring, the bow of a brooch or a bracelet.
Date: early 5th century or earlier.

115). *Copper ring* (see Fig. 8.2-47)
Context: 3257. Triconch Room 26 (west wing). Phase 5: levelling deposit, *c*. AD 425–50.
SF 2133.
Dimensions: exterior diameter: 44 mm; interior diameter: 34 mm; section of ring: 5 × 3 mm.
Material: copper alloy.
Simple rectangular-sectioned copper ring. Found in association with five links of chain (cat. 109 above) and an iron rod (Iron cat. 19).
Date: probably first half of 5th century

116). *Fragmentary thick copper ring*
Context: 5403. Triconch Room 19 (south wing). Phases 7–8, clay deposit, early to mid-5th century.
SF 3155.
Dimensions: diameter: 20 mm; diameter of rod: 4 mm.
Material: copper alloy.
Half of a simple round-sectioned copper ring, possibly a chain-link.
Date: early to mid-5th century or earlier.

117). *Small ring in two fragments and short length of copper rod*
Context: 5270. Triconch Room 21 (south wing). Phase 8: mussel-shell deposit, early to mid-6th century (*c*. AD 525–50).
SF: 2836.
Dimensions: outer diameter of ring: 9 mm; thickness of wire: *c*. 1.5 mm; rod: length: 24 mm; section: 5 × 5 mm.
Material: copper alloy.
A small ring in two joining fragments, and a short curving length of copper rod, the rod badly corroded.
Date: early to mid-6th century or earlier.

118). *Copper ring*
Context: 1411. Triconch Room 25 (western entrance vestibule). Phase 12: clay deposit or rough surface, early to late 10th century (with later intrusive material).
SF 833.
Dimensions: diameter: *c*. 23 mm; thickness of wire: 3 mm.
Material: copper alloy.
Small ring, with very even rounded section and smooth surface.
Date: 10th century? Possibly later, even modern, intrusion.

119). *Fragmentary copper ring*
Context: 1114. Room unknown. Phase 15: unstratified topsoil.
SF 36.

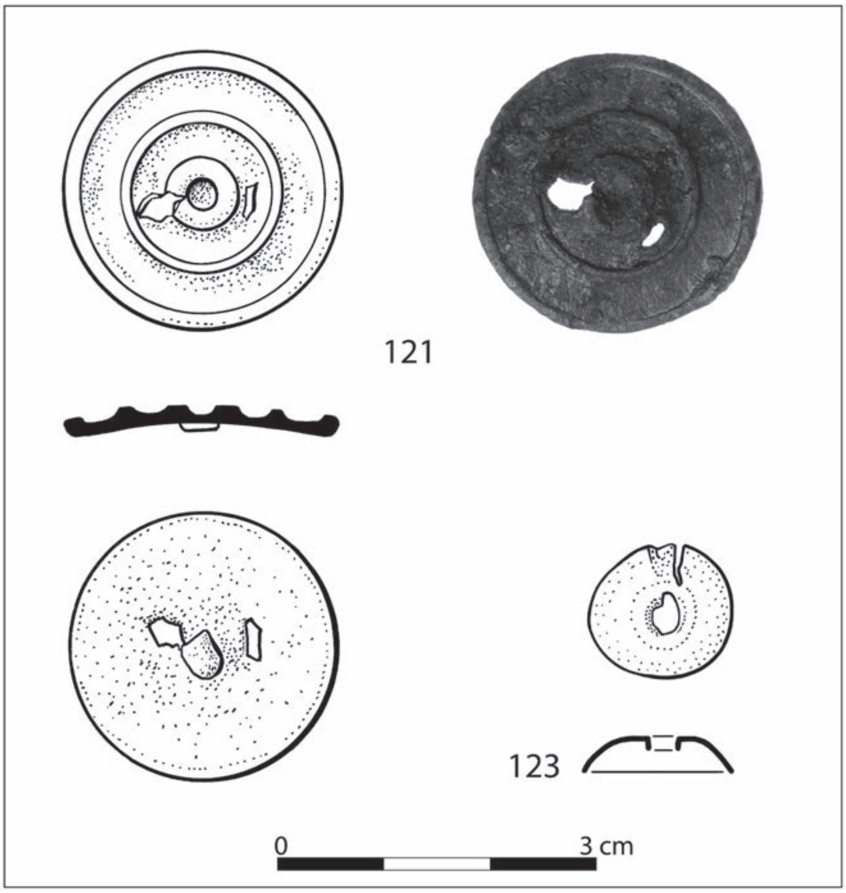


Figure 8.2-49. Small pierced discs (Cu alloy cat. nos 121 and 123)

Dimensions: diameter: 31 mm; thickness of wire: 4 mm.
Material: copper alloy.
Half of a copper ring of thick round-sectioned wire.
Date: unknown.
Bibliography: Guest *et al.* 2004, 295, fig. 16.4

PERFORATED DISCS
120). *Fragment of copper washer-like disc*
Context: 5331. Triconch Room 29 (west wing). Phase 10: make-up for mortar surface, late 6th to early 7th century.
SF 3085.
Dimensions: diameter: 14 mm; diameter of perforation: 7.5 mm; thickness: 1 mm.
Material: copper alloy.
Half of a copper washer-like disc.
Date: probably 6th century.

121). *Small disc with concentric ridges* (Fig. 8.2-49)
Context: 1245. Triconch Room 17 (north wing). Phase 14: post-hole fill, early 13th to 14th century.
SF 574.
Dimensions: diameter: 25 mm.
Material: copper alloy.
A small disc with three concentric circular ridges on its display face, with a perforation at the centre. The reverse is plain, with the little square base of an attachment lug at the centre. The disc is pierced by two small irregular holes, possibly for conversion to a button.
Date: 14th century or earlier.
Bibliography: Guest *et al.* 2004, 297, fig. 16.11.

122). *Sub-circular pierced disc*
Context: 3044. Merchant's House Room 38, Phase 14b: deposit pre-dating construction of Phase 14b tower, 14th century.
SF 2021.
Dimensions: diameter: 16 mm; perforation: 3 × 3.5 mm; thickness: less than 1 mm.
Material: copper alloy.
Small sub-circular washer-like disc, pierced at centre by a little sub-rectangular hole. There is a small bite out of the circumference at one point.
Date: 14th century or earlier.

123). *Small pierced domical disc* (Fig. 8.2-49)
Context: 3015. Merchant's House (east of) Room 28. Phase 15: cultivation soil, 15th century and later.
SF 1189.
Dimensions: diameter: 13 mm; height: 3 mm; thickness of sheet: less than 0.5 mm.
Material: copper alloy.
Small stud-like domical disc with sub-round perforation

at centre.
Date: uncertain.

124). *Small pierced disc*
Context: 1114. Room unknown. Phase 15: unstratified topsoil.
SF 560.
Dimensions: diameter: 11 mm; thickness: less than 1 mm.
Material: copper alloy.
A small disc from thin copper plate, pierced at the centre.
Date: uncertain.

MISCELLANEOUS FITTINGS/MOUNTS/ARTEFACTS
125). *Fragmentary artefact* (Fig. 8.2-50)
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF 842.
Dimensions: 27 × 10 × 4 mm.
Material: copper alloy.
Fragment of small complex artefact. A square-sectioned rod, tapering and bent over at the narrow end, profiled at the wide end, with a stem curling out from this profiling, in line with the bent-over apex; the two may have originally been joined to form an oblong loop. All three ends broken.
Function uncertain.
Date: 5th or early 6th century.

126). *Fragment of copper artefact with curved surface*
Context: 1494. Triconch (north of) Room 24. Phase 7?: tile and rubble demolition, 6th century.
SF 702.
Dimensions: 21 × 13 × 7 mm.
Material: copper alloy.
Small fragment of a substantial copper artefact with curved outer surface.
Date: probably 6th century.

127). *Small broken fitting* (Fig. 8.2-50)
Context: 1586. Triconch Room 31 (west wing). Phase 7: post-hole fill, early 6th century.
SF 888.
Dimensions: 33 × 7–8 mm; thickness: 1–4 mm.
Material: copper alloy.
Small narrow copper strip, splaying at one end, with a little square protrusion in the middle of one face. Broken at both ends.
Date: 5th or early 6th century.

128). *Small strip bent at one end to form an eye* (Fig. 8.2-50)
Context: 1523. Triconch Room 31 (west wing). Phase 8: deposit or possible surface, mid-6th century.
SF 851.
Dimensions: length: 20 mm; width: 3 mm; thickness: >1 mm.
Material: copper alloy.
Small length of narrow strip, bent over at one end to form an irregular open eye; broken at the low end.
Date: 6th century.

129). *Fragmentary copper artefact*
Context: 3325. Triconch (north of) Room 24. Phases 9–10: rubble layer, 6th century?
SF 2176.
Dimensions: 23 × 12 × 8 mm.
Material: copper alloy.
Fragment of copper artefact with two adjacent smooth surfaces about a straight corner; the rear is rough; fractured at both ends.
Date: 6th century or earlier.

130). *Strip with 'tang'* (Fig. 8.2-50)
Context: 5331. Triconch Room 29 (west wing). Phase 10: make-up for mortar surface, late 6th to early 7th century.
SF 3087.
Dimensions: length: 69 mm; section of strip: 3.5–4 × 2 mm; diameter of round-sectioned tang: 2 mm.
Material: copper alloy.
Short rectangular-sectioned copper strip, with a round-sectioned tang issuing from one end. The end of the tang is broken off.
Function uncertain.
Date: probably 6th or early 7th century.

131). *Broken element from copper artefact* (Fig. 8.2-50)
Context: 1411. Triconch Room 25 (western entrance vestibule). Phase 12: clay deposit or rough surface, early to late 10th century (with later intrusive material).
SF 815.
Dimensions: 34 × 18 mm; thickness: more than 1 mm.
Material: copper alloy.
A tongue-shaped fragment from an unidentified object.
Date: 10th century or earlier?

132). *Three small fragments of a tubular artefact*
Context: 3193. Merchant's House (east of) Room 38. Phase 12 or earlier: demolition level, probably late antique.
SF: 2124
Dimensions: Longest fragment 15 mm × 6 mm; thickness of material *c.* 1 mm
Material: copper alloy.
Three small fragments of a small tubular artefact.
Date: 6th century or earlier.

133). *Elongated rhomboidal fitting with terminal tangs* (Fig. 8.2-50)
Context: 5359. Triconch Room 16 (courtyard). Phases 12–13: levelling or occupation deposit, early 10th to 12th century.
SF 3276.
Dimensions: length (bent): 57 mm; length (unbent): *c.* 115 mm; width: 2–19 mm; thickness: 1 mm.
Material: copper alloy.
Symmetrically shaped strip of copper sheet, in a drawn-out diamond-shape, wide in the middle, narrow at the ends, terminating in little projecting tangs at both ends. Now bent over and twisted out of shape.

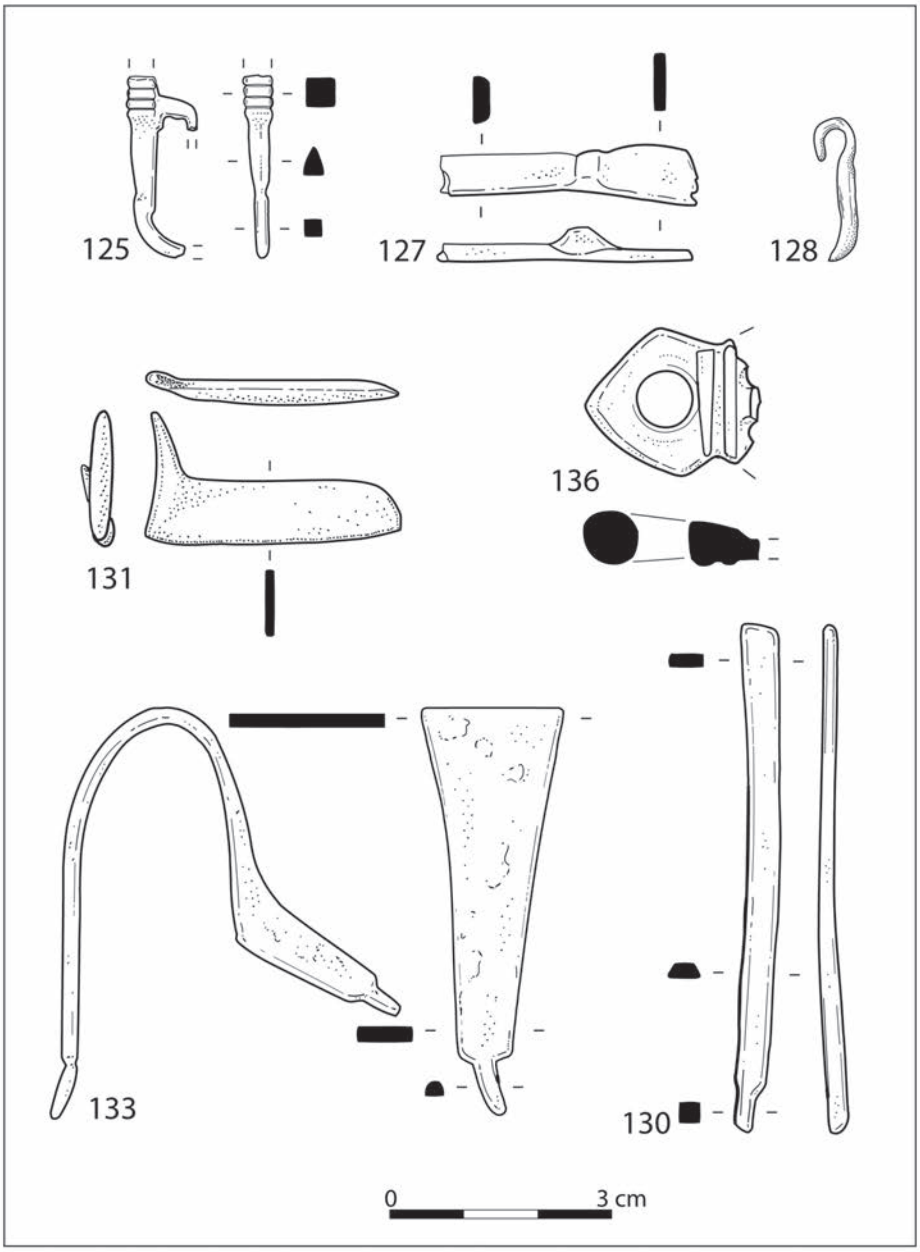


Figure 8.2-50. Miscellaneous artefacts (Cu alloy cat. nos 125, 127, 128, 130, 131, 133 and 136)

Function uncertain.
Date: 10th to 12th century or earlier.

134). *Fragment of elaborately formed tubular artefact*
Context: 3304. Merchant's House Room 39 (courtyard) Phase 13a: cobbled yard or road surface, early 11th to 12th century.
SF 2401.
Dimensions: length: 13 mm; section: 4 × 4 mm; thickness of metal: 0.5 mm.
Material: copper alloy.
Small fragment of an elaborately formed turned tubular artefact, sub-circular in section, narrowing to one end and broken at the other. Corroded.
Date: 11th to 12th century or earlier.

135). *Small fragment of a copper artefact*
Context: 2091. Merchant's House Room 39 (courtyard) Phase 14a: cultivation soil, 13th to 14th century.
SF 1180.
Dimensions: 13 × 14 × 5 mm.
Material: copper alloy.
Small fragment of a copper artefact with a handle-like element emerging from one surface. Some corrosion.
Date: uncertain, 13th to 14th century or earlier.

136). *Small broken fitting* (Fig. 8.2-50)
Context: 1114. Triconch Room 16 (courtyard). Phase 15: unstratified topsoil.
SF 1111.
Dimensions: 25 × 22 × 3–8 mm. Diameter of perforation:

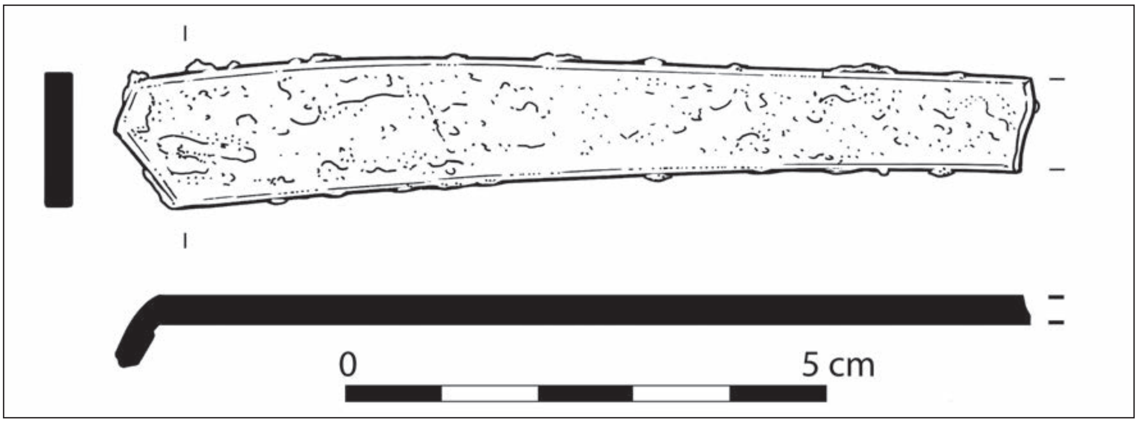


Figure 8.2-51. Veneer clamp (Cu alloy cat. no. 137)

9.5 mm.
Material: copper alloy.
Small fitting with angled profile and regular round perforation. On one side is a profiled collar and the stubs of three broken ‘stems’. Extensive traces of green paint.
Date: uncertain; probably modern.

VENEER CLAMP
137). *Veneer clamp* (Fig. 8.2-51)
Context: 1227. Triconch Room 17 (north wing). Phase 1: demolition rubble, late 3rd to 4th century.
SF 489.
Dimensions: length: 94 mm; width: 13 > 9 mm: thickness: 3 mm.
Material: copper alloy.
A shaped strip of copper sheet of rectangular section, tapering gently along its length, the wider end angled over. This is a cramp for securing marble wall-veneer, probably from the 3rd-century structures which preceded the *domus*. Similar copper strips, identified as veneer clamps, have been found in recent excavations of the Roman period villa at Diaporit, on the eastern shore of Lake Butrint. Revetment pins of a similar type have been found at Sardis (Waldbaum 1983, 66, cat. 268–74, pl. 19).
Date: 3rd century or earlier.

Sheets, strips, rods and wire

ARTEFACTS FROM SHEET
138). *11 fragments of an artefact*
Context: 1575. Triconch Room 31 (west wing). Phase 6: trample level, mid- to late 5th century.
SF 855.
Material: copper alloy.
Eleven fragments of copper artefact made from 1 mm sheet. One fragment is pierced by an irregular 5 × 3 mm hole. Others are bent over.
Date: probably 5th century

139). *3 thin sheets riveted together* (Fig. 8.2-52)
Context: 5024. Triconch Room 22 (south wing). Phase 12-13: rubble and silt deposit, 10th to 11th century.
SF 2321.
Dimensions: 65 × 60 mm; thickness of sheets: 0.5 mm.
Material: copper alloy.
Fragment of a complex, rather summarily constructed artefact formed of three thin sheets of copper securely riveted together. One sheet is sub-rectangular and is largely preserved; the other two are now amorphous; one original edge of the larger of these survives. The rivets have flat splayed heads, in all cases with their heads sharply punched through the centre point.
Date: 11th century or earlier.

140). *Small artefact from folded sheet* (Fig. 8.2-52)
Context: 5301. Triconch Room 16 (courtyard). Phases 12–13: humic build-up in courtyard, 10th to 12th century.
SF 3008.
Dimensions: 44 × 10 mm; thickness: 1 mm.
Material: copper alloy.
Small artefact fashioned of thin copper sheet, rolled to a flattened open cylinder, narrowing to a slender tang at each end, widening to an elongated sub-oval in the middle, with edges turned in and flattened.
Date: probably 10th to 12th century.

141). *Fragmentary artefact*
Context: 1899. Triconch Room 16 (courtyard). Phases 13–14: rubble layer, 11th to 14th century.
SF 1127.
Dimensions: 43 × 17 mm; thickness: 3.5 mm.
Material: copper alloy.
A curving section of thick copper sheet, broken at one end.
Date: 11th to 14th century?

142). *3 thin sheets riveted together*
Context: 5007. Triconch Room 18 (long gallery). Phases 14–15: subsoil, 14th century and later.
SF 2291.
Dimensions: 55 × 45 mm; thickness of sheets: 0.5 mm.
Material: copper alloy.
Fragment of a complex, rather summarily constructed

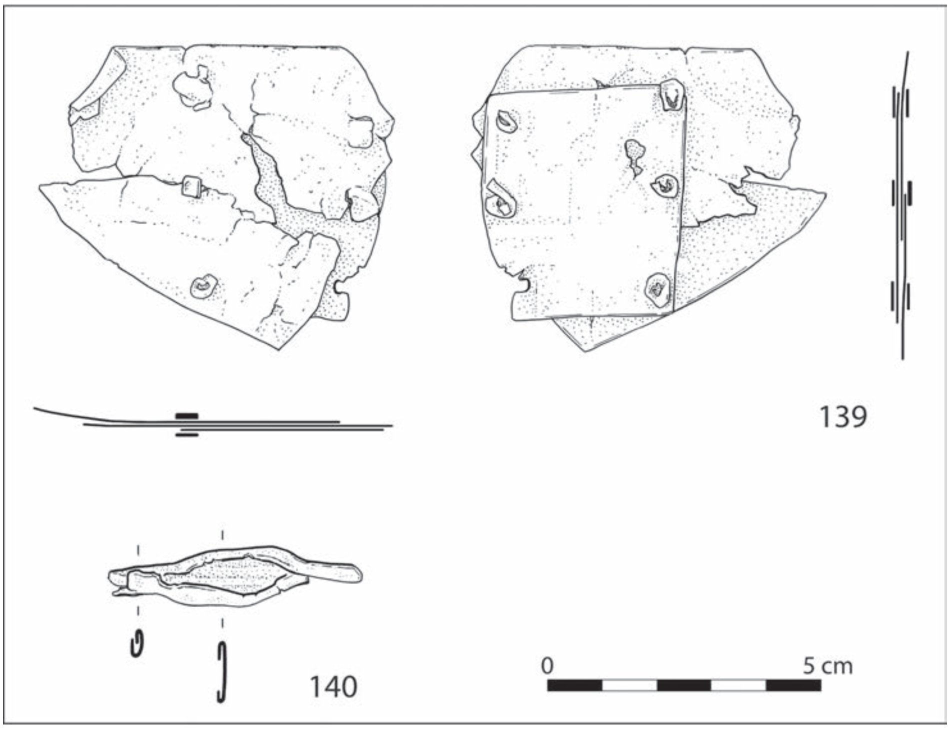


Figure 8.2-52. Copper alloy sheet fragments (Cu alloy cat. nos 139 and 140)

artefact formed of three thin sheets of copper securely riveted together. The rivets have flat splayed heads, but do not seem to have been punched. No original edges are preserved.
Date: uncertain.

143). *Complex artefact of copper sheet.*
Context: 1114. Room unknown. Phase 15: unstratified topsoil.
SF 490.
Dimensions: 68 × 60 × 38 mm.
Material: copper alloy.
A complex housing constructed from bent and soldered shaped copper alloy sheets. The function of this object is unclear but it was probably designed to cover a wooden core.
Date: unknown.

DECORATED SHEETS
144). *Perforated sheet* (Fig. 8.2-53)
Context: 3090. Merchant's House Room 37. Phase 8: rubble/demolition layer, early to mid-6th century.
SF 2314.
Dimensions: 34 × 33 mm; thickness: less than 1 mm.
Material: copper alloy.
Small sub-rectangular fragment of thin copper sheet, ornamented with a spiral pattern of perforations. Broken on all sides.
Date: early to mid-6th century or earlier.

145). *Sheet decorated with stippling* (Fig. 8.2-53)

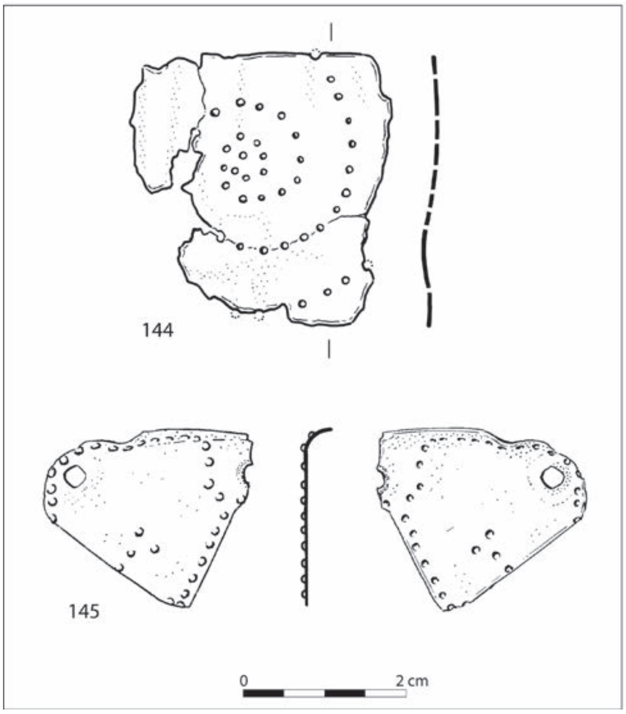


Figure 8.2-53. Decorated sheet fragments (Cu alloy cat. nos 144 and 145)

Context: 1699. Triconch Room 16 (courtyard). Phases 12–13?: mixed demolition and build-up, 10th to 12th century with intrusive material.
SF 1066.

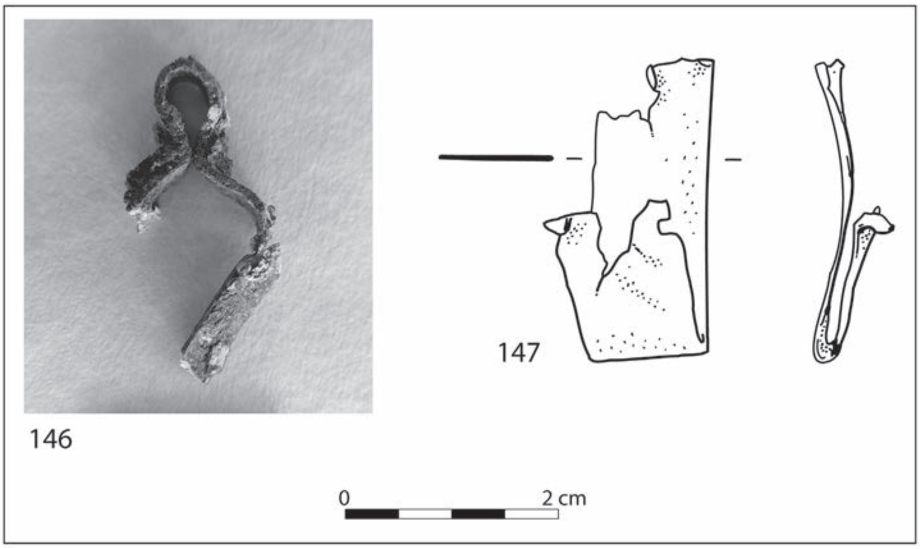


Figure 8.2-54. Copper alloy strip fragments (Cu alloy cat. nos 146 and 147)

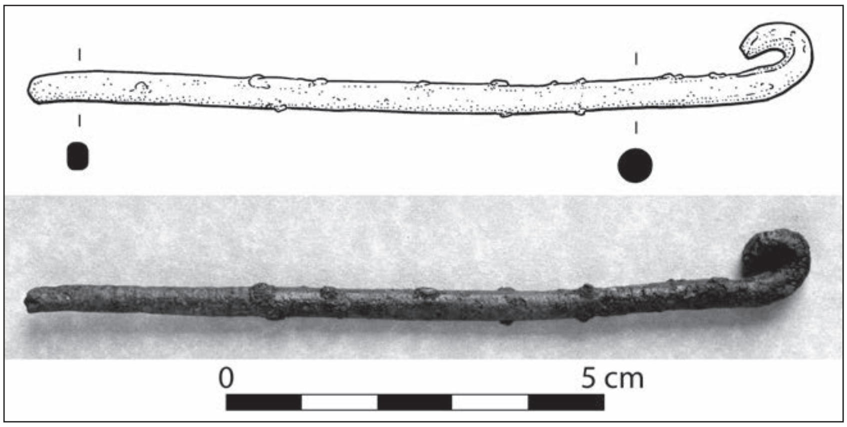


Figure 8.2-55. Crook-shaped copper rod (Cu alloy cat. no.148)

Dimensions: 25 × 21 mm; thickness: less than 1 mm.
Material: copper alloy.
Sub-triangular fragment of thin copper sheet with a patterned stippling of punch-marks, roughly following the contours of two of the sides and a trefoil cluster of four stipples adjacent to the third side. A round perforation for a nail or rivet for attachment in one of the corner-angles of the sheet.
Date: 10th to 12th century or earlier.

MISCELLANEOUS STRIPS

146). *Fragment of copper strip* (Fig. 8.2-54)
Context: 5351. Triconch Room 23 (south wing). Phase 5: rubble layer, *c.* AD 420–50.
SF 3158.
Dimensions: bent configuration: 20 × 15 mm; section of strip: 5 × 1.5 mm.
Material: copper alloy
Fragment of copper strip bent to a roughly tri-lobed configuration.
Date: first half of 5th century or earlier.

147). *Fragment of bent copper strip* (Fig. 8.2-54)
Context: 3220. Merchant's House Room 39 (courtyard). Phases 14–15: cultivation soil, 14th century or later.
SF 1932.
Dimensions: bent length: 29 mm (original unbent length: *c.* 45 mm); width: 11.5 mm; thickness: less than 1 mm.
Material: copper alloy.
Length of copper strip, with straight parallel edges, bent and damaged at both ends – although parts of the original ends are preserved. Possible traces of a small round perforation at each end for nails or rivets.
Date: uncertain.

RODS

148). *Crook-shaped copper rod* (Fig. 8.2-55)
Context: 1699. Triconch Room 16 (courtyard). Phases 12–13?: mixed demolition and build-up, 10th to 12th century with intrusive material.
SF 891.
Dimensions: length: 103 mm; section: 3.5 mm.
Material: copper alloy.

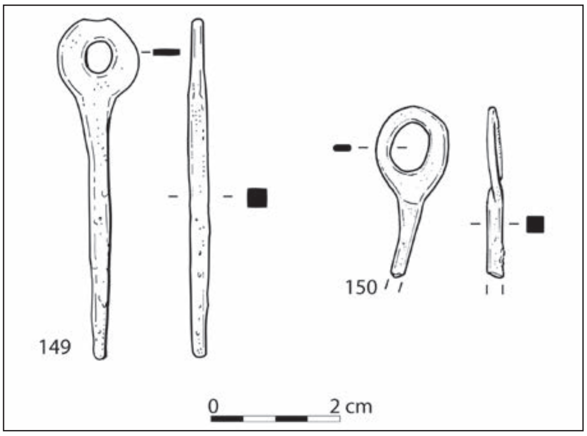


Figure 8.2-56. Small ring-spikes (Cu alloy cat. nos 149 and 150)

Length of round-sectioned rod, curled over into an open eye, a crook, at one end; broken off at other end, where the rod is slightly flattened.
Date: 10th to 12th century or earlier.

Spikes and nails and rivets

SPIKES
149). *Small ring-spike* (Fig. 8.2-56)
Context: 5330. Triconch Room 29 (west wing). Phase 10: rubble deposit, late 6th to early 7th century.
SF 3032.
Dimensions: length: 52 mm; diameter of head: 12 mm; section of shaft: 4 × 3 > 2 × 2 mm.
Material: copper alloy.
Small ring-spike, with rectangular-sectioned tapering shaft and a round flattened head pierced by a 4 mm round perforation.
Date: late 6th to early 7th century or earlier.

150). *Small ring-spike* (Fig. 8.2-56)
Context: 5008. Triconch Room 18/23 (south wing). Phase 12: grave fill (grave 5012), early to late 10th century.
SF 2317.
Dimensions: length: 28 mm; section of shaft: 4 × 4 > 2 × 2 mm; outer diameter of ring: 12 mm; inner diameter of ring: 7 mm.
Material: copper alloy.
Small delicate ring-spike, fashioned from a rod and flattened.
Date: 10th century or earlier

NAILS
151). *Tack* (Fig. 8.2-57)
Context: 3190. Merchant's House Room 37. Phase 3-5: backfill of well, early to mid-5th century.
SF 2650.
Dimensions: length: 16 mm; head: 5 mm; section of shaft: 2 × 2 mm.
Material: copper alloy.
Small perfectly preserved copper tack, with flat round head and sub-round-sectioned shaft.
Date: early to mid-5th century or earlier.

152). *Nail* (Fig. 8.2-57)
Context: 4113. Merchant's House Room 37. Phases 3–5: silt and ash occupation deposit, early to mid-5th century.
SF 2594.
Dimensions: length: 57 m; head: 13 mm; section of shaft: 7 × 7 > 3.5 × 4 mm.
Material: copper alloy.
Copper nail with round conical head flattened on top and square-sectioned tapering shaft. The tip has broken off. The sloping sides of the head are gently concave. Possibly this is a rivet for use in boat construction.
Date: probably early to mid-5th century.

153). *Nail* (Fig. 8.2-57)
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF 848.
Dimensions: length: 26 mm; diameter of head: 12 mm; section of shaft: 5 × 4 > 3.5 × 3 mm.
Material: copper alloy.
Upper part of a small copper nail, with compact round head with vertical sides, slightly domed; square-sectioned shaft.
Date: early 6th century or earlier.

154). *Nail* (Fig. 8.2-57)
Context: 5305. Triconch Room 21 (south wing). Phase 7: rubble deposit, early 6th century.
SF 3104.
Dimensions: length: 32 mm (bent), *c*. 40 mm (unbent); head: 9 mm; section of shaft: 1.5 × 1.5 mm.
Material: copper alloy.
Complete but bent copper nail with sub-round flat head and sub-square-sectioned shaft.
Date: early 6th century or earlier.

155). *Small nail* (Fig. 8.2-57)
Context: 5268. Triconch Room 21 (south range). Phase 9: tile rubble, mid to late 6th century.
SF 3033.
Dimensions: length: 22 mm; head: 6.5 mm; section of shaft: 2 × 2 – less than 1 × 1 mm.
Material: copper alloy.
Complete small nail with flat sub-rounded head and round-sectioned shaft.
Date: 6th century or earlier.

156). *Nail* (Fig. 8.2-57)
Context: 1439. Triconch Room 29 (west wing). Phase 10: make-up for mortar surface, late 6th to early 7th century.
SF 615.
Dimensions: length: 61 mm (bent), *c*. 67 mm (unbent); head: 10 mm; section of shaft:
5 × 4 > 1.5 × 1 mm.

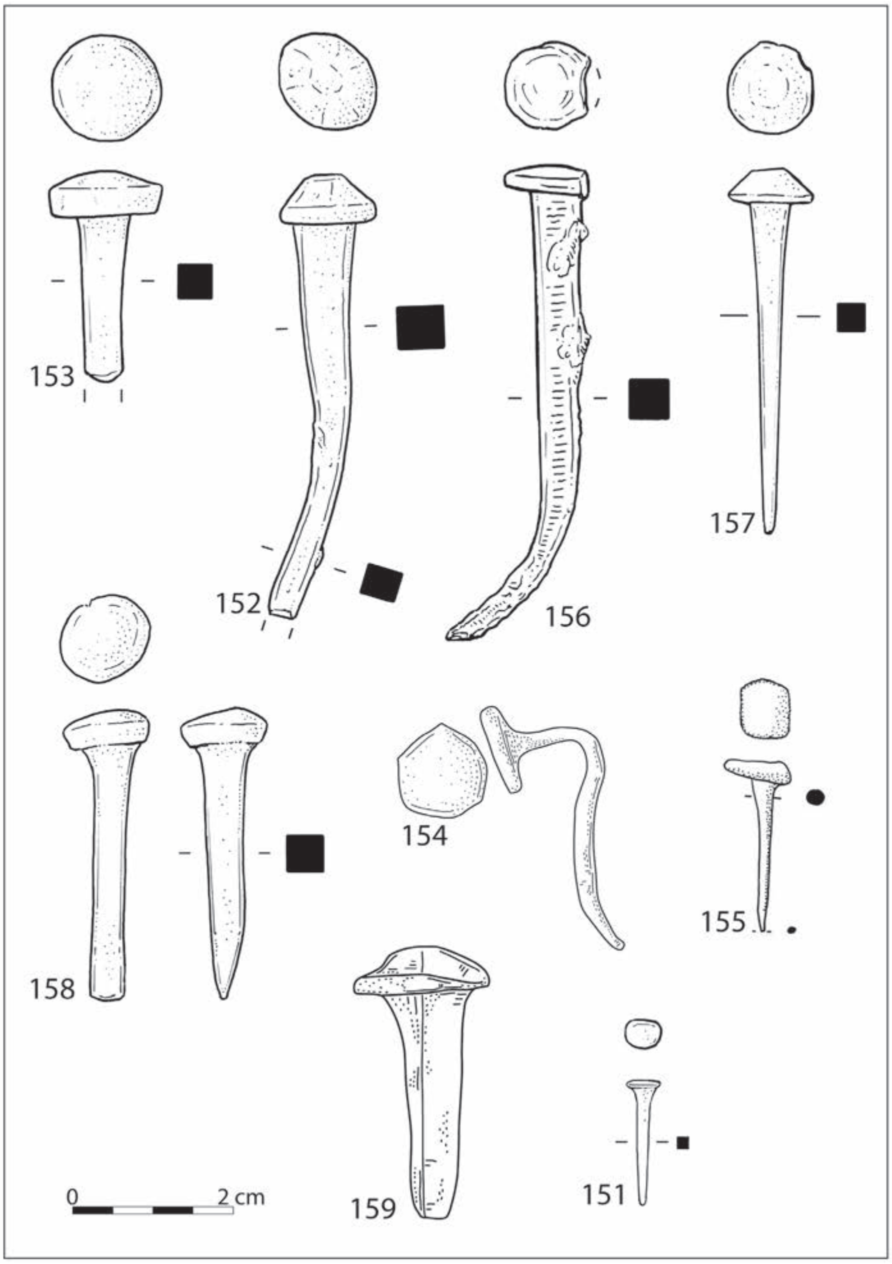


Figure 8.2-57. Copper alloy nails (Cu alloy cat. nos 151 to 159)

Material: copper alloy.
Complete copper nail with fairly flat eccentric slightly domical head and tapering sub-square-sectioned shaft. The shaft is bent to a curve towards its lower end.
Date: late 6th or early 7th century or earlier.

157). *Nail* (Fig. 8.2-57)
Context: 3127. Merchant's House Room 45 (tower). Phase 14?: layer predating construction of tower?
SF 1984.
Dimensions: length: 49 mm; head: 12 mm; shaft: 4 × 4 > 1.5 × 1 mm.
Material: copper alloy.
Complete copper nail with domical sub-rounded head, and tapering sub-square-sectioned shaft.
Date: 14th century or earlier, probably 6th century.

158). *Nail* (Fig. 8.2-57)
Context: 4009. Merchant's House Room 38. Phase 15: topsoil, 15th century or later.
SF 2337.
Dimensions: length: 39 mm; head: 12 × 11 mm; section of shaft: 5 × 5 mm, tapering to a point
Material: copper alloy.
Almost perfectly preserved small nail, with flat sub-domical head and square-sectioned shaft tapering to a chisel-point.
Date: uncertain.

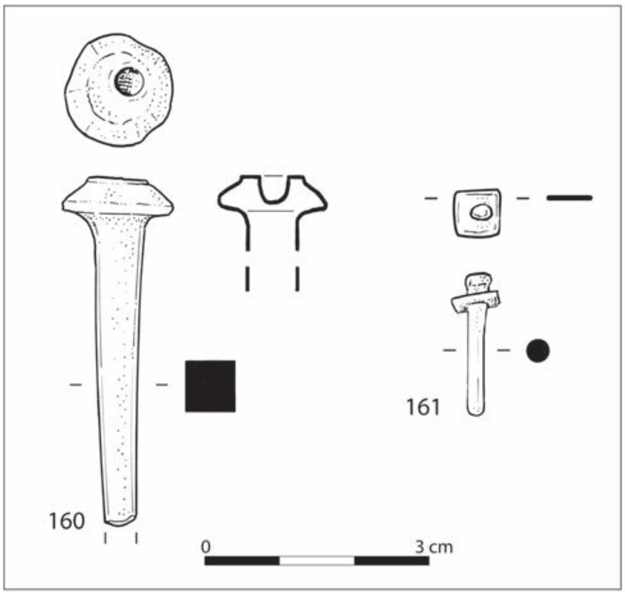


Figure 8.2-58. Rivets (Cu alloy cat. nos 160 and 161)

159). *Nail* (Fig. 8.2-57)
Context: unstratified. Triconch Room 24 (reception room).
SF 576.
Dimensions: length: 35 mm; diameter of head: 14-15 mm; section of shaft: 6 × 6 > 4.5 × 4.5 mm.
Material: copper alloy.
Well-preserved copper nail with sub-rounded domical head and tapering square-sectioned shaft. Lower end of shaft missing.
Date: probably 5th or early 6th century.

RIVETS
160). *Rivet* (Fig. 8.2-58)
Context: 1009. Triconch Room 10 (to north of *triclinium*).
Phase 2, demolition deposit, 4th century
SF 492.
Dimensions: length: 49 mm; head, max: 16 mm; section of shaft: 5 × 7 mm.
Material: copper alloy.
A completely preserved rivet/nail, with a tapering square-sectioned shaft and a round bevelled head with a punched circular depression in its upper surface.
Date: 4th century or earlier.

161). *Wire rivet with square rove* (Fig. 8.2-58)
Context: 5362. Triconch Room 16 (courtyard). Phase 9: natural accumulation of silt, mid- to late 6th century.
SF 3212.
Dimensions: length: 18 mm; thickness of wire: 1.5 mm; rove: 6 × 6 mm.
Material: copper alloy.
Small wire rivet with little square rove in place.
Date: probably 6th century.

3. Iron artefacts

Aside from considerable quantities of nails, the iron assemblage from the Triconch is quite modest: nine knife-blades, of various types, from late Roman and medieval contexts, mostly severely corroded, evenly spread between the courtyard and southern range of the *domus* and the area of the Merchant's House (cat. nos 2–10); a fragmentary pair of scissors, from the courtyard, Room 39, in the Merchant's House (cat. 12) and one needle from Room 17 (cat. 11) (both from medieval contexts); an axe-head, possibly a military throwing axe, from Room 16, the peristyle courtyard (cat. 15) and a small arrowhead (also from a medieval context in the yard in the Merchant's House) (cat. 16), both probably of 6th- to 7th-century date; a number of spikes and ring-spikes, mostly from the Merchant's House (cat. nos 19–29); a swivel-ring coupling from a medieval context in Room 40 in the Merchant's House (cat. 31) and a 6th-century horse-shoe from Room 18, the long gallery in the *domus* (cat. 30); a number of rings, including one with a pierced lug for some special purpose (cat. 35) (again from a medieval context in Room 40), and numerous fragments of iron sheets, bars and rods (see www.iadb.co.uk/butrint for full archived catalogue). In addition, there were some fragments of fuel ash waste and metalworking slag, mostly from 5th- to 6th-century contexts, which testify to metalworking activity, especially in the courtyard and the south range of the *domus* (see Chapter 5). An anomalous find is a small octagonal vessel, the shape of an ashtray, with a mark resembling a cursive letter 'm' impressed into its lower surface, found in 14th-century or later cultivation soil in Room 38 in the Merchant's House 9 (cat. 18). Both the age and use of this object are obscure.

Articles of dress

DRESS FITTINGS
1). *Fragment of iron artefact – strap-fitting?*
Context: 5338. Triconch Room 27. Phase 7: tile dump, early 6th century
SF 3073.
Dimensions: 48 mm × 30 mm × 2–5 mm.
Material: iron.
Fragment of decayed artefact, with what looks like the corner of a semi-lunar, buckle-like, perforation; possibly a fitting for a strap.
Date: early 6th century or earlier.

Implements and tools

KNIFE BLADES
2). *Fragment of knife blade* (Fig. 8.3-1)
Context: 4019. Merchant's House Room 41/44. Phase 7: layer post-dating city wall construction, early 6th century.
SF 2339.
Dimensions: length: 94 mm; width: 17 mm tapering to 14 mm at haft end and 7 mm at curved tip; thickness with

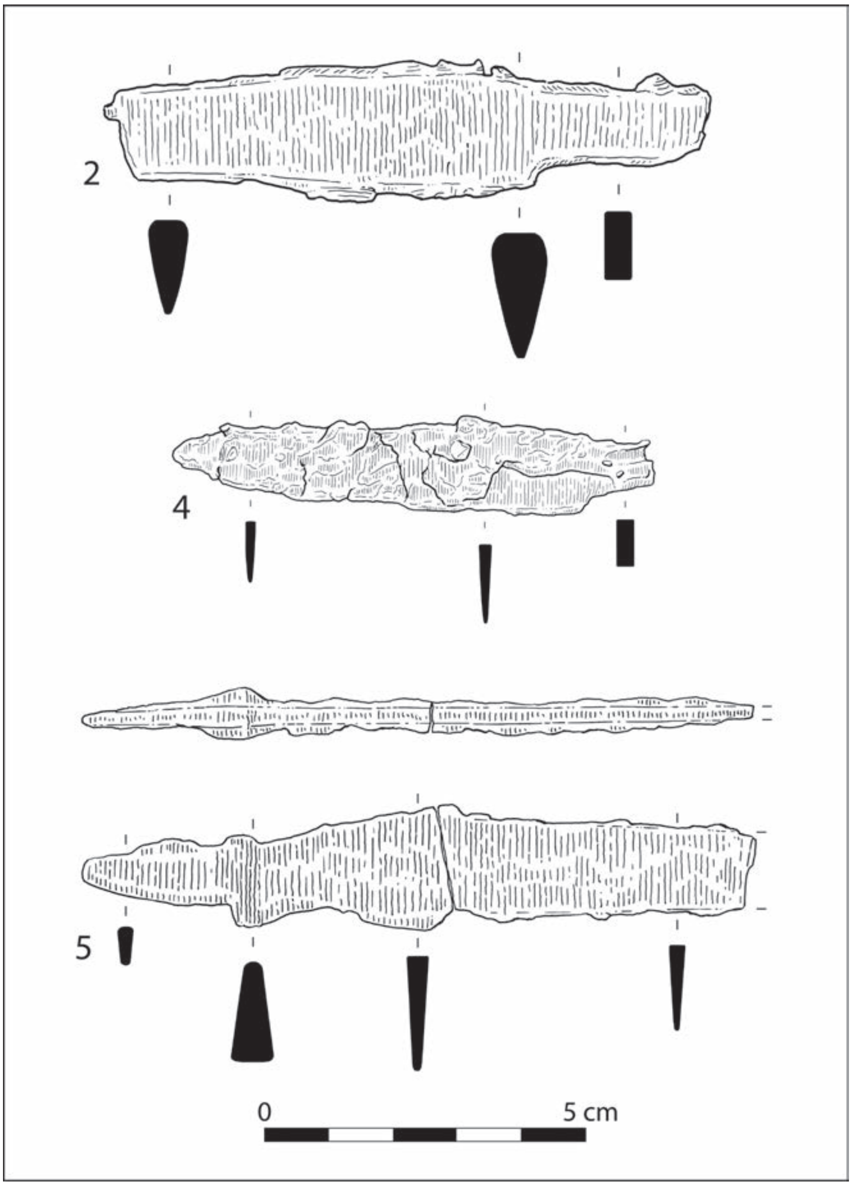


Figure 8.3-1. Iron knife blades (Fe cat. nos 2, 4 and 5)

corrosion: *c*. 8–10 mm. Careened to a peak on the upper edge.
Material: iron.
Fragment of iron knife blade, heavily corroded; part of the tang and part of the blade are preserved. The blade has a gently convex cutting edge.
Date: early 6th century or earlier.

3). *Fragment of knife blade*
Context: 1452. Triconch Room 22. Phase 9: rubble deposit, mid- to late 6th century (*c*. AD 550–75).
SF 653.
Dimensions: length: 81 mm; width: 17 >13 mm; thickness: 1.5 > less than 1 mm.
Material: iron.
Fragment of a knife blade, much decayed.
Date: probably 6th century.

4). *Two joining fragments of a knife blade* (Fig. 8.3-1)
Context: 1452. Triconch Room 22. Phase 9: rubble deposit, mid- to late 6th century (*c*. AD 550–75)
SF 696.
a: Dimensions: length: 74 mm; width: *c*. 20 mm; thickness: 8–1 mm (corroded); tang: length: 18 mm; width: 11 mm; thickness: 5 mm.
b: Dimensions: length: 61 mm; width: 18 > 2 mm; thickness: 8 >1 mm (corroded).
Material: iron.
Two joining fragments of an iron knife blade. The blade is lanceolate in form with one cutting edge.
Date: probably 6th century.

5). *Knife blade* (Fig. 8.3-1)
Context: 1606. Triconch Room 18 (long gallery). Phase 9: occupation horizon, mid- to late 6th century.

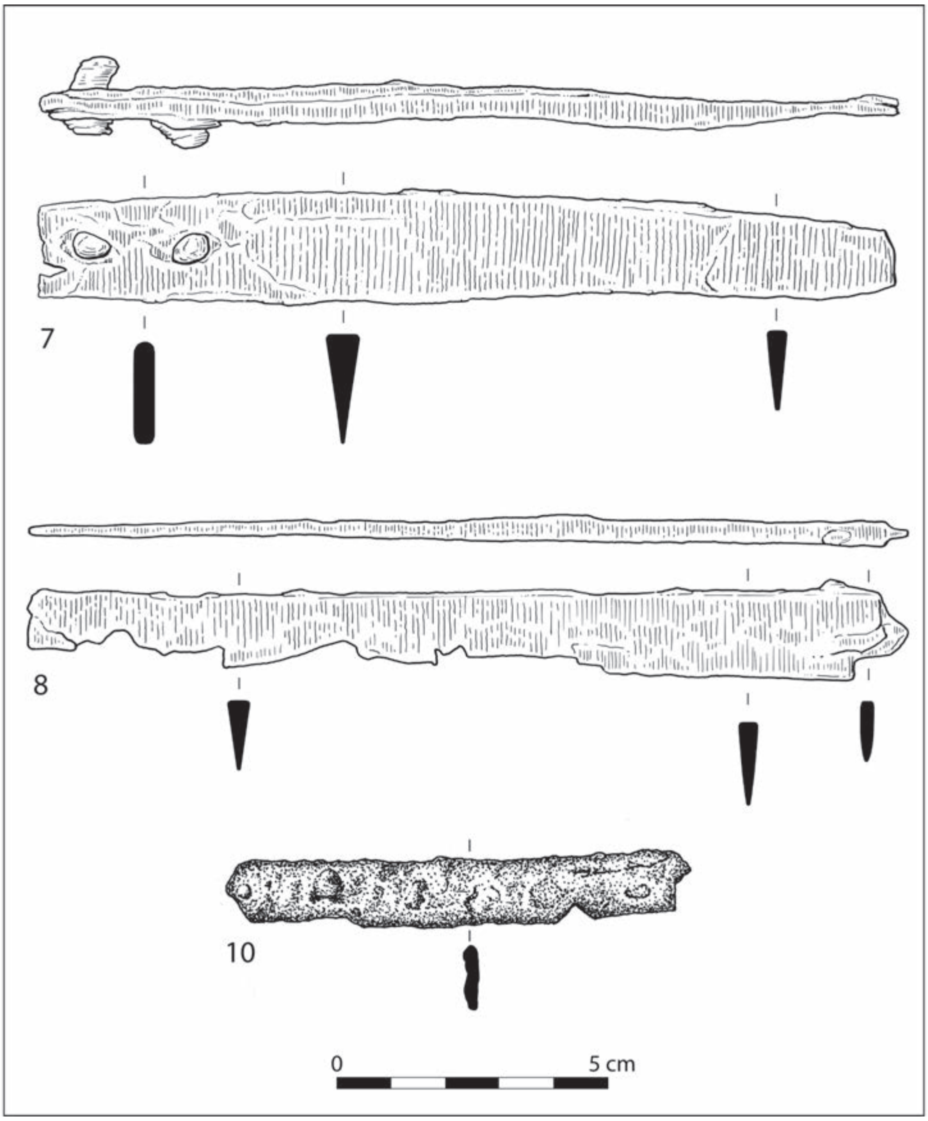


Figure 8.3-2. Iron knife blades (Fe cat. nos 7, 8 and 10)

SF 2308.
Dimensions: length: 0.108 m; width: 20 mm > 5 mm; thickness with corrosion: *c*. 7 mm.
Material: iron.
Two joining fragments of a knife blade, careened to a peak on the upper edge. Corroded.
Date: 6th century

6). *Two fragments of knife blade*
Context: 2053. Triconch Room 16. Phases 12–13: humic build-up in courtyard, 10th to 12th century.
SF 1141.
a: Dimensions: length: 71 mm; width: 32–23 mm; thickness: 6–3 mm (corroded).
Material: iron.
b: Dimensions: length: 35 mm; width: 27 mm; thickness: 10 mm (corroded).
Material: iron.
Two fragments of a knife-blade; upper edge straight, lower cutting edge gently convex. Corroded. The two pieces do not join.
Date: 10th to 12th century or earlier.

7). *Knife blade* (Fig. 8.3-2)
Context: 2070. Merchant's House Room 40. Phases 14–15: cultivation soil, 14th to 16th century or later.
SF 1198.
Dimensions: length: 0.165 m; width: 19 < 22 > 11 mm; thickness: 5 > 1 mm.
Material: iron.
Knife blade with the remains of two rivets through the upper end. Broken at both ends. Upper edge gently convex; cutting edge very slightly convex.
Date: 14th to 16th century or earlier.

8). *Knife blade* (Fig. 8.3-2)
Context: 2092. Merchant's House Room 39 (courtyard). Phases 14–15: cultivation soil, 14th to 15th century.

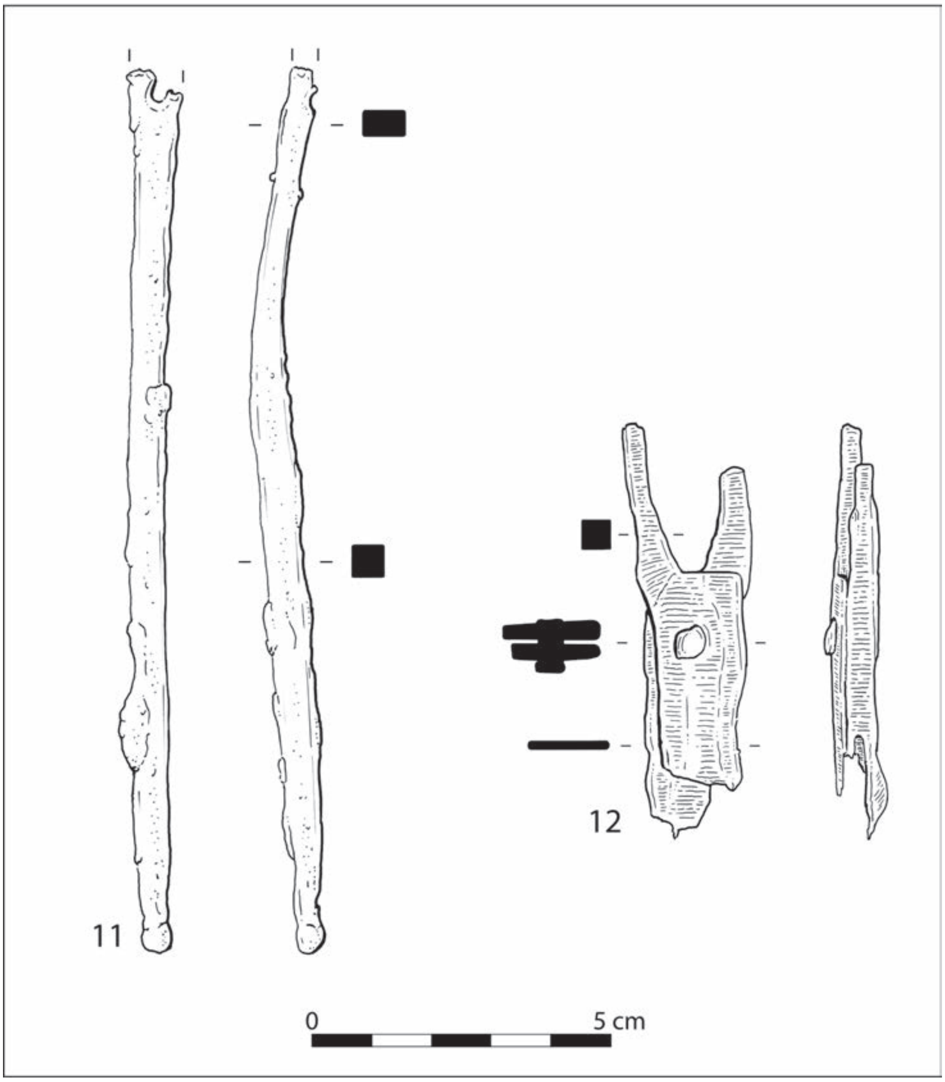


Figure 8.3-3. Iron needle and fragment of a pair of scissors (Fe cat. nos 11 and 12)

SF 1175.
Dimensions: length: 0.164 m; width: 17 > 10 mm; thickness: 4 > 1 mm.
Material: iron.
Blade of knife with stub of tang preserved. The long upper edge of the blade is straight; the lower cutting edge is damaged and corroded. This appears to have been a long narrow blade, straight along the top and with minimal curvature along the cutting edge.
Date: 15th century or earlier.

9). *Fragment of a knife blade*
Context: 3166. Merchant's House Room 43. Phases 14–15: cultivation soil, 14th to 15th century.
SF 2078.
Dimensions: length: 0.125 m; width: 17 < 20 mm; thickness: 7 > less than 1 mm.
Material: iron.
Fragmentary knife blade, broken at both ends and corroded. Both upper edge and cutting edge more or less straight.
Date: 15th century or earlier.

10). *Fragment of knife blade* (Fig. 8.3-2)
Context: 1114. Room unknown. Phase 15: unstratified topsoil.
SF 1053.
Dimensions: length: 88 mm, width: 12 mm (tang 10 < 11 mm); thickness: 3.5 > 1 mm.
Material: iron.
Fragmentary blade of knife, pierced by two rivets towards one end. The upper edge is straight and what remains of the cutting edge, corroded and uneven, appears also to be straight.
Date: uncertain.

OTHER IMPLEMENTS
11). *Needle* (Fig. 8.3-3)
Context: 1183. Triconch Room 17: Phase 13+: rubble layer,

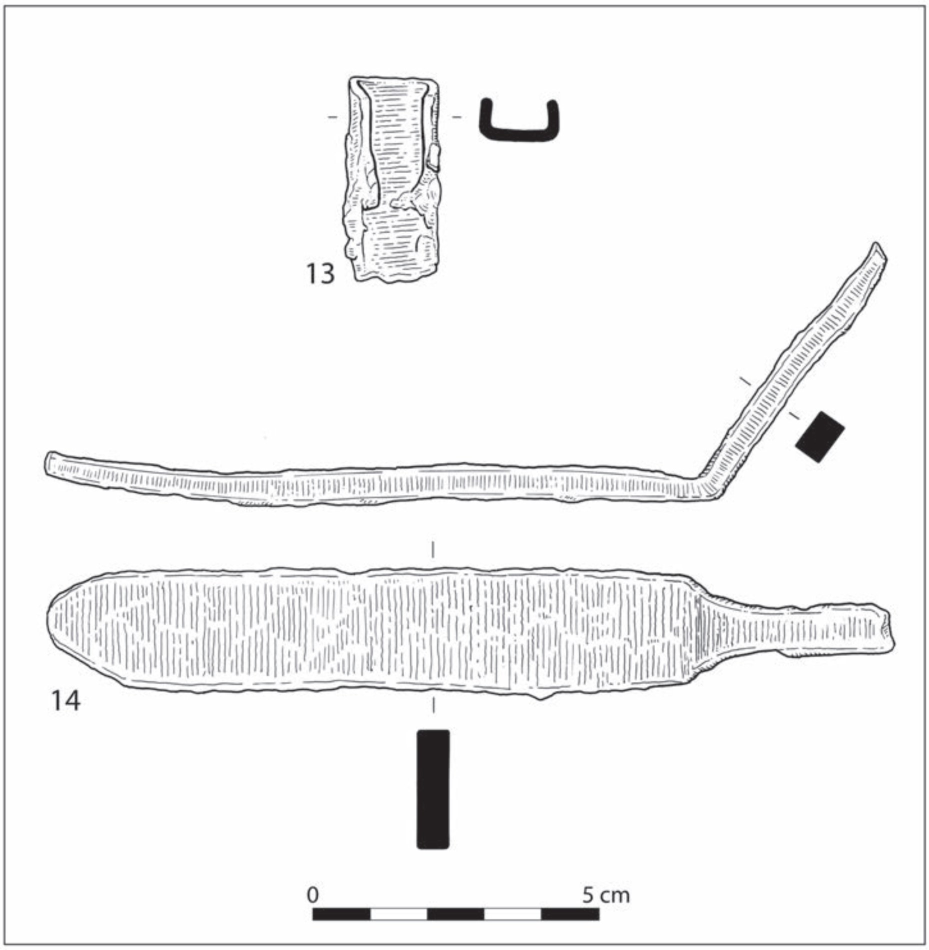


Figure 8.3-4. Iron tools (Fe cat. nos 13 and 14)

medieval with earlier material
SF 97.
Dimensions: length: 115 mm; diameter of shaft: 4 mm; diameter of perforation: *c*. 2.5 mm.
Material: iron.
A large sub-round-sectioned needle, tapering somewhat at the point. The upper end has been broke off at the eye which is partly preserved.
Discussion: A needle of this size might have been used for working on nets.
Date: medieval or earlier.
Bibliography: Guest *et al.* 2004, 299, fig. 16.24.

12). *Fragmentary pair of scissors* (Fig. 8.3-3)
Context: 2085. Merchant's House Room 39 (courtyard). Phases 14–15: cultivation soil, 14th to 15th century.
SF 1172.
Dimensions: preserved length: 77 mm; max width: 19 mm; max thickness: 7 mm.
Material: iron.
Central section of a pair of scissors; the central pivot and the stubs of the blades and of the shanks are preserved.
Date: 15th century or earlier.

TOOLS
13). *Sleeve or ferrule* (Fig. 8.3-4)
Context: 3059. Merchant's House Room 39 (courtyard): Phase 14a: humic soil, 13th to 14th century.
SF 2008.
Dimensions: length: 37 mm; width: 15 < 17 mm; thickness: 7–1 mm.
Material: iron.
Sleeve or ferrule of bent-over iron sheet, tapering at one end, possibly to a chisel-like cutting edge.
Date: 13th to 14th century or earlier.

14). *Iron implement* (Fig. 8.3-4)
Context: 3124. Merchant's House Room 44. Phase 14/15: cultivation soil, 14th to 15th century or later.
SF 2053.
Dimensions: Overall (bent) length: *c*. 0.157 m; tang: length: 55 mm; width 8 < 9 mm; blade: length: 0.123 m; width: 21 mm; thickness: 3–5 mm.
Material: iron.
Iron implement with long narrow blade, with a rounded end and a narrow angled tang, bent up at the point where blade and tang meet. There is no sign of a cutting edge and all edges are straight. This may be some kind of special

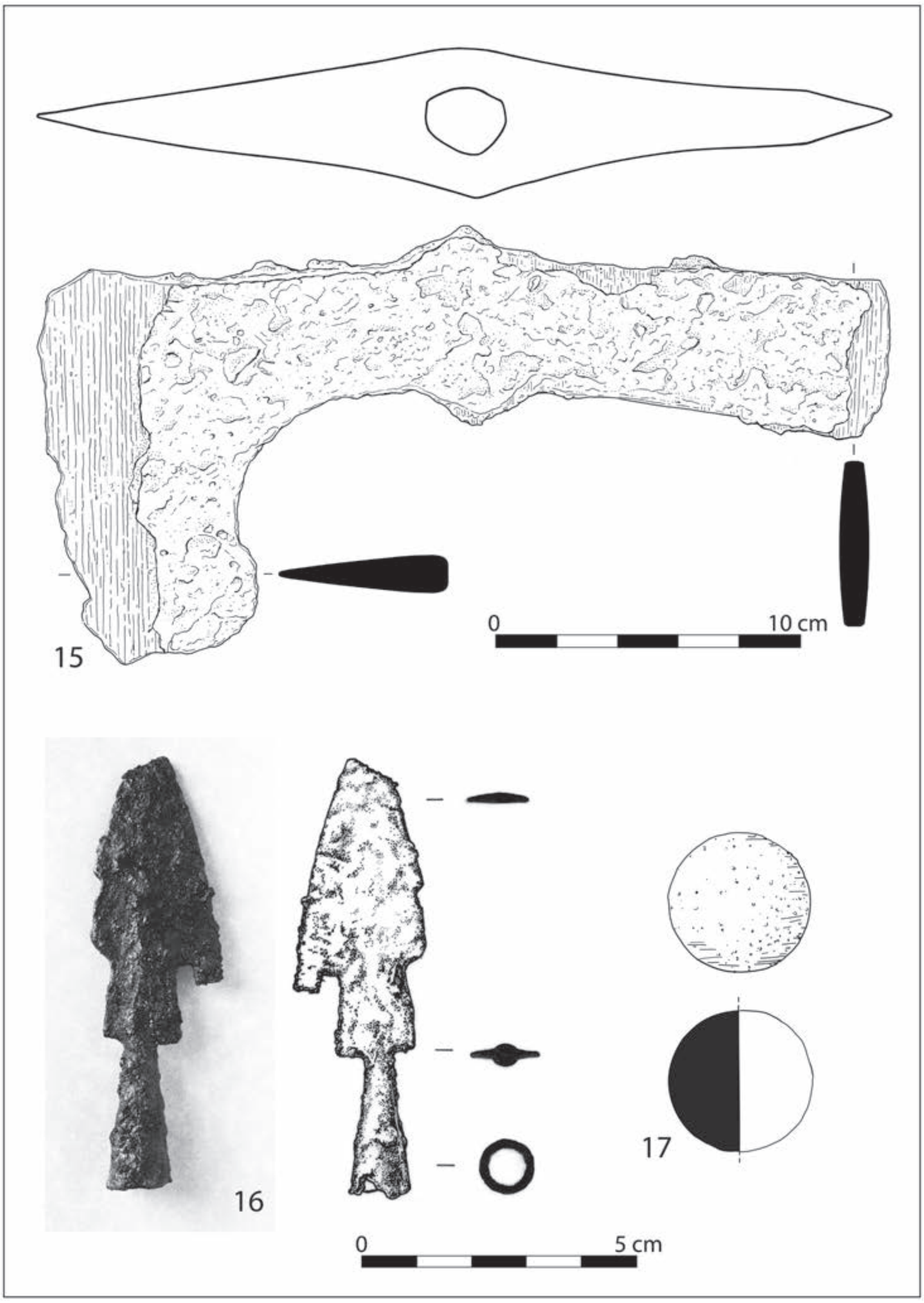


Figure 8.3-5. Iron weapons (Fe cat. nos 15, 16 and 17)

purpose trowel or tool for the application and levelling of a setting medium, like plaster.
Date: 15th century or earlier?

WEAPONS
15). *Axe-head* (Fig. 8.3-5)
Context: 1899. Triconch Room 16 (courtyard). Phases 13–14: rubble layer, 11th to 14th century
SF 1098.
Dimensions: length: 0.285 m; max. height: 0.129 mm (main blade), 56 mm (subsidiary blade); max width: 50 mm. Haft perforation/socket: *c*. 30 mm × 20 mm.
Material: iron.
Large iron two-bladed axe-head; one blade of the so-called 'bearded' elongated dropping type, the other narrow and almost straight-sided. Axe-heads with 'bearded' dropping blades have been found in the cemeteries at Krujë and Dalmace and other sites in north-western Albania (Nallbani 2002, 358–61, pls 94–6). They are present in Francia (Pirling 1974, grave 1763, text, 146; Katalog und Tafeln, 58–9, pl. 39, 8a,b; Pirling 1979, grave 2735, text, 108, Katalog und Tafeln, 67, pl. 67, 4a,b), Lombard Italy from the late 6th century (Silva *et al.* 1990, 47, 100, with pl. XIX, 1, with references to further examples), in late Avar burials from the 7th and 8th centuries (Zábojník 2000, 329–30, pl. 3: 74, 8), and in the 8th- and 9th -century burials

in proto-Bulgarian contexts (Nallbani 2002, 359–61, with references). The great majority of axes from this period have been found in burials and are battle-axes, designed for throwing and reminiscent of the Frankish francisca. These tend to be single-bladed, with either a simple poll or a flat hammer-peen balancing the blade. On the Triconch axe-head the dropping blade is balanced by a second narrow blade. This could have served as a throwing axe but may have been designed for civilian use. Procopius, writing in the 6th century, seems to be describing a two-bladed weapon when referring to the Frankish throwing axe, remarking that it is exceedingly sharp on both sides (Procopius, *Wars* VI, 25, 4)
Date: 11th–14th century or earlier, 6th–8th century?

16). *Arrowhead* (Fig. 8.3-5)
Context: 2085. Merchant's House Room 39 (courtyard). Phases 14–15: cultivation soil, 14th to 15th century.
SF 1169.
Dimensions: length: 81 mm; max. width: 24 mm; max. diameter of socket, outer: 12 mm, interior: 9 mm.
Material: iron.
Small iron arrowhead, with conical hollow neck for attachment to a wooden shaft and lateral ears extending back free from the body of blade, one of which is preserved. Damage to point and one side of body.
'Earred' arrowheads were in widespread use throughout central and western Europe from the 5th to the 9th century (Nallbani 2002, 368–9). In Albania they have been found mostly in 5th- to 6th-century contexts, at Gradishta de Symizë (Karaiskaj 1979–80, 185), Lezhë and Krujë (Nallbani 2002, CXXIV, nos 89, 91, 92).
Date: 15th century or earlier; probably 6th century.

17). *Iron sphere, fire-arm projectile?* (Fig. 8.3-5)
Context: 3241. Merchant's House Room 42. Demolition deposit.
SF 1941.
Dimensions: diameter: 27 mm.
Material: iron.
Iron sphere, possibly a projectile from a fire-arm.
Date: 15th century or earlier.

VESSELS
18). *Fragmentary shallow polygonal vessel*
Context: 4027. Merchant's House Room 38. Phases 14–15: cultivation soil, 14th century or later
SF 2413.
Dimensions: 64 × 35 mm; height at rim: 21.5 mm; thickness of floor of base: 6–7 mm; original full diameter: *c*. 70 mm**.**
Material: cast iron.
Fragment of a shallow polygonal (apparently octagonal) vessel with inward sloping sides, projecting rim, thin bottom, and curved interior profile. On the bottom is an impressed monogram, resembling a cursive *m*. The vessel is covered with a polished black patina.
Date: uncertain.

SPIKES AND HOOKS
19). *Rod or spike and chain* (see Fig. 8.2-47)
Context: 3257. Triconch Room 26 (west wing). Phase 5: levelling deposit, *c*. AD 425–50.
SF 2133.
Dimensions: bent length: 0.116 m; shaft of rod: *c*. 9 mm × 9 mm > 6 mm × 6 mm.
Material: iron.
A square-sectioned iron rod or spike, tapering slightly, associated with a short length of iron chain. Very corroded. The chain is formed of S-shaped links, the bowls of each link set at right-angles to each other. Each link is 34 mm long, 17 mm wide, the wire 3–5 mm in diameter.
Found in association with a short length of copper chain and a ring, Copper cat. nos 109 and 115.
Date: AD 425–50 or earlier.

20). Head of small spike
Context: 1490. Triconch Room 25 (west wing). Phase 6: trample deposit above mosaic, mid- to late 5th century.
SF 1050.
Dimensions: length: 32 mm; head: 18 × 16 mm; shaft: 6 × 5 mm.
Material: iron.
Head of a small spike, with head turned at right-angles to the shaft.
Date: 5th century.

21). *Spike*
Context: 5013. Triconch Room 18 (long gallery). Phase 8: mortar and mussel-rich clay layer, mid-6th century.
SF: none.
Dimensions: length: 46 mm; head: 20 × 16 mm.
Material: iron.
Corroded upper part of square-sectioned spike, with head turned at right-angles to the shaft.
Date: 6th century or earlier.

22). *Spike* (Fig. 8.3-6)
Context: 3105. Merchant's House Room 40. Phase 10: roof collapse, late 6th to early 7th century
SF 2046.
Dimensions: length: 0.163 m; shaft: 23 mm × 9 mm (max corroded) tapering to point.
Material: iron.
Flat-sectioned iron spike, heavily corroded.
Date: early 7th century or earlier.

23). *Ring hook* (Fig. 8.3-6)
Context: 3105. Merchant's House Room 40. Phase 10: roof collapse, late 6th to early 7th century
SF 2046.
Dimensions: 77 mm × 45 mm × 22 mm (max).
Material: iron.
A bent ring hook fashioned from a powerful piece of iron strip. Possibly a fitting for suspension from the roof of this two-storey building.
Date: 6th century or earlier.

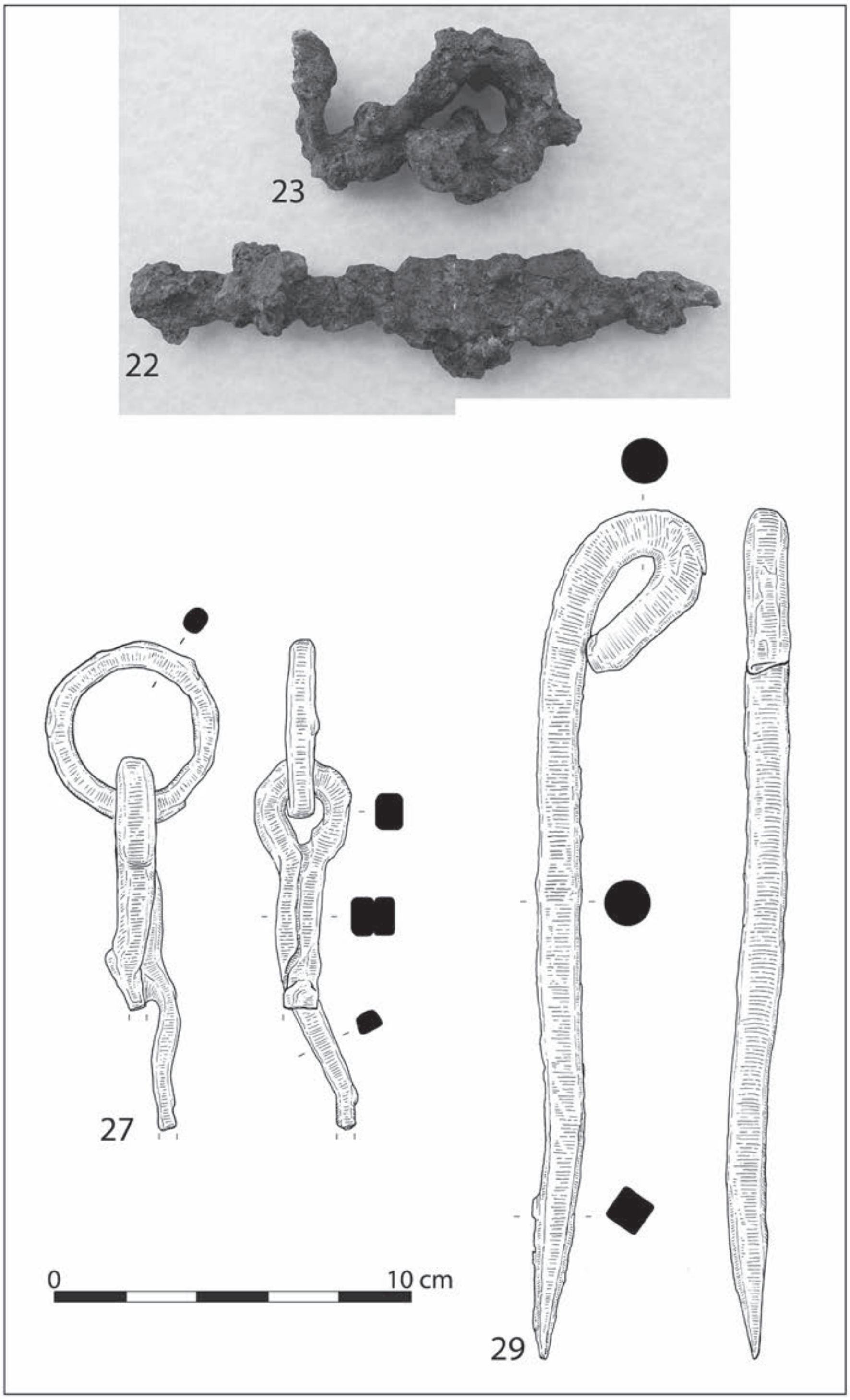


Figure 8.3-6. Ring spikes and hooks (Fe cat. nos 22, 23, 27 and 29)

24). Fragment of small spike
Context: 3020. Merchant's House Room 39 (courtyard). Phases 11–13a: shell-midden over Merchant's House courtyard, 7th to 12th century.
SF: none.
Dimensions: length: 27 mm; head: 20 × 15 mm; shaft: 7 × 5 mm.
Material: iron.
Upper section of a small spike, with head turned at right-angles to the shaft.
Found in association with 3 nails.
Date: 7th to 12th century or earlier.

25). *Spike*
Context: 2053. Triconch Room 16 (courtyard). Phases 12–13: humic build-up in courtyard, 10th to 12th century

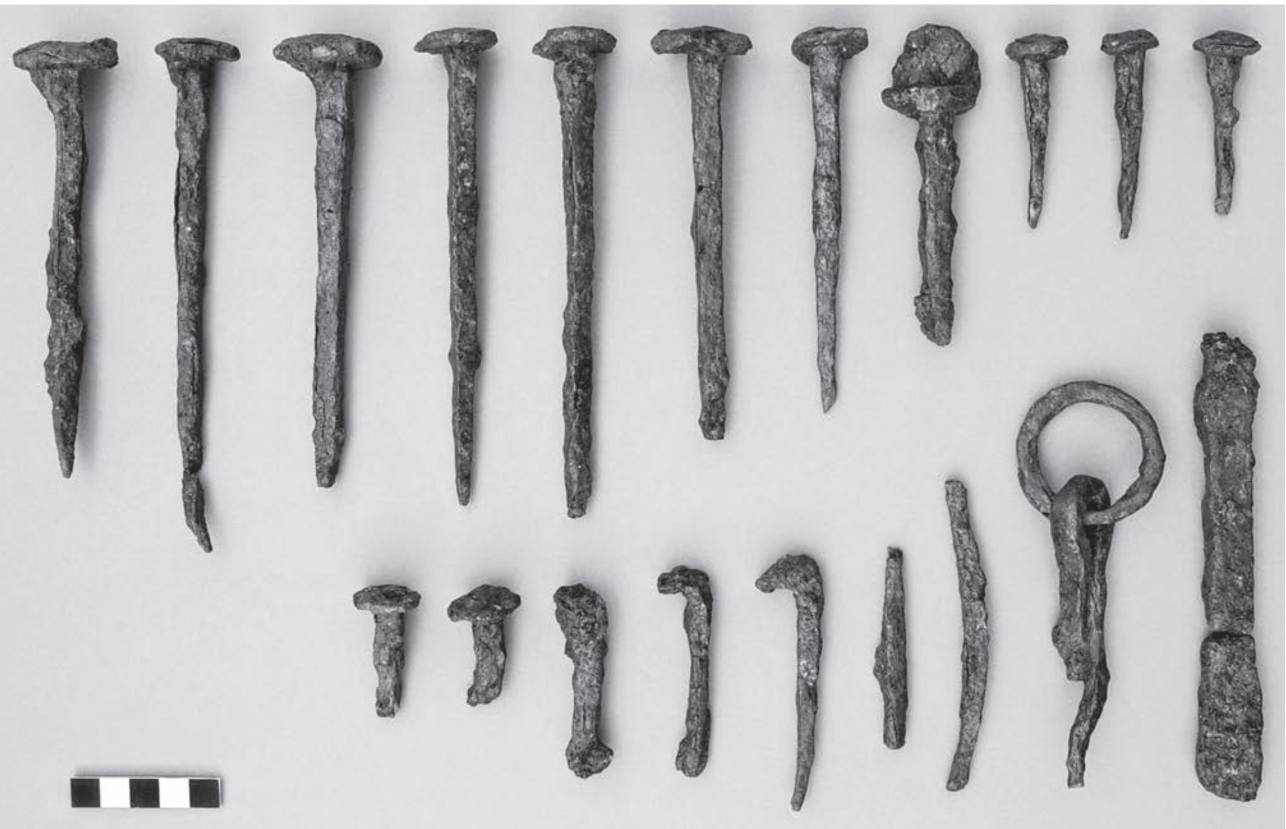


Figure 8.3-7. Concentration of iron nails, ring spikes and hooks recovered from context 5301 in the Triconch courtyard (Fe cat. nos 27 and 28)

SF 1158.
Dimensions: length: 68 mm; head: *c*. 22 mm × 22 mm.
Material: iron.
Corroded short square-sectioned spike, tapering to a blunt point, with flat head turned at right-angles to the shaft. Corroded.
Date: 10th to 12th century or earlier

26). Small spike
Context: 3248. Triconch Room 16 (courtyard). Phases 12–13: Layer below rubble in west portico; 10th–12th century
SF: none.
Dimensions: length: 53 mm; head: 24 × 22 mm; shaft: 8 × 8 mm.
Material: iron.
Small spike, with head turned at right-angles to the shaft; lower end missing.
Found in association with 3 nails.
Date: 10th-12th century or earlier

27). *Ring spike* (Fig. 8.3-6 and Fig. 8.3-7)
Context: 5301. Room 16. Phases 12–13: demolition deposit, 10th to 12th century.
SF 3016.
Dimensions: Overall length: 0.141 m; length of spike: 0.111 m; outer diameter of ring: 46 mm; inner diameter: 34 mm; thickness of ring: 7 mm.
Material: iron.
An iron ring turning freely on a spike; the spike a tapering iron shaft bent back and welded onto itself to form a loop round the ring.
Date: probably 10th to 12th century.

28). *Three spikes* (Fig. 8.3-7)
Context: 5301. Triconch Room 16 (courtyard). Phases 12–13: demolition deposit, 10th to 12th century.
SF 3016.
Dimensions: a). length: 68 mm; head: 16 × 13 mm; shaft: 7 × 7 mm > 5 × 4 mm; b). length: 84 mm; head: 20 × 13 mm; shaft: 8 × 7 mm > 2 × 2 mm; length: 105 mm; shaft: 1010 > 6 × 5 mm.
Material: iron.
Three spikes with turned-over heads; a) missing tip, b) complete.
Found with 14 large and medium nails and a ring-spike (cat. 27)
Date: 10th to 12th century or earlier.

29). *Ring-spike* (Fig. 8.3-6)
Context: 3143. Merchant's House Room 39 (courtyard). Phase 14/15: cultivation soil, 14th to 15th century or later.
SF 2059.
Dimensions: length: 0.233 m; diameter of rod: *c*. 11 mm tapering to a point.

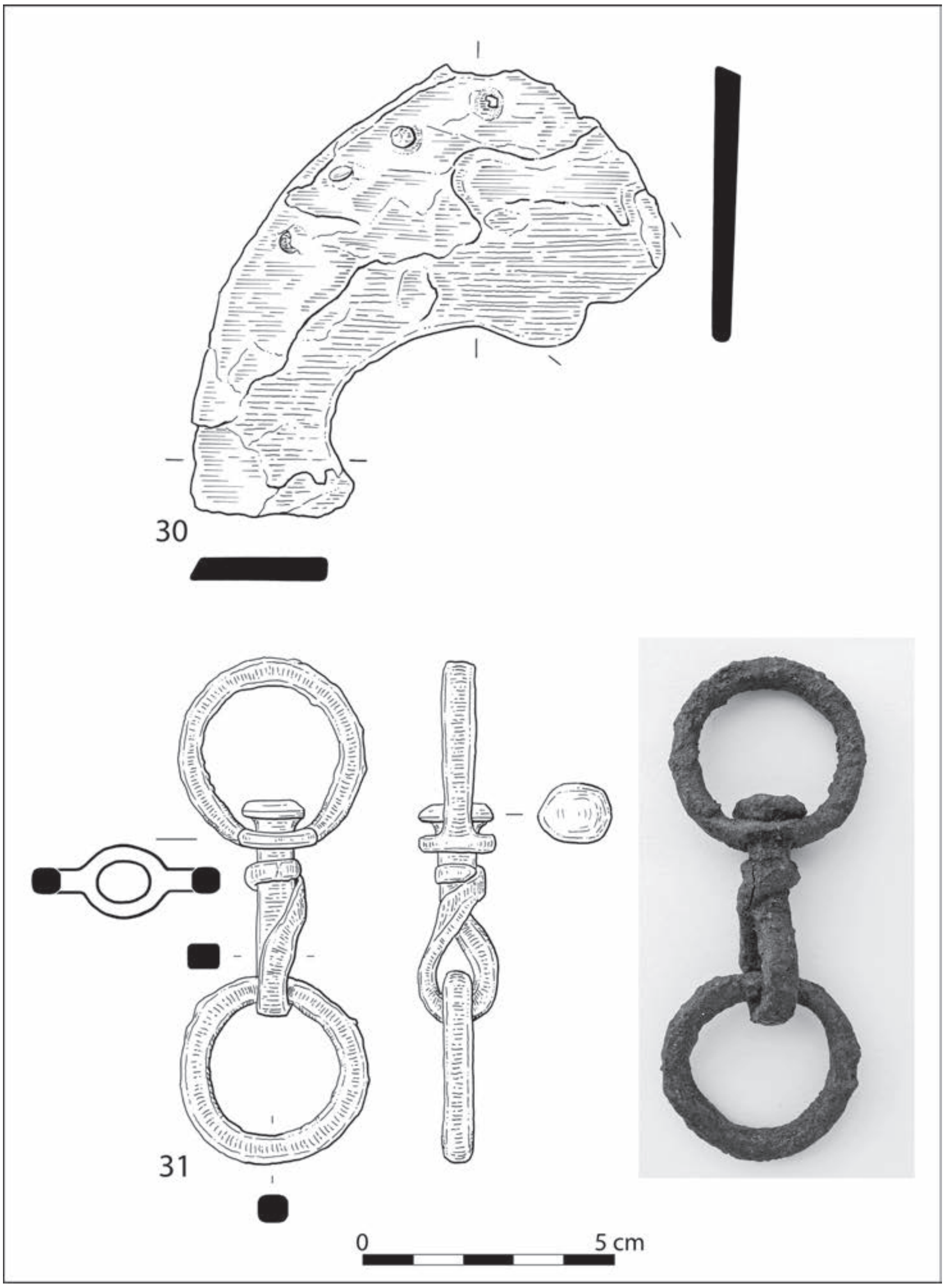


Figure 8.3.8. Fragment of horse-shoe (Fe cat. no. 30) and a swivel-ring fitting (Fe cat. no. 31)

Material: iron.
Large ring-spike fashioned from a round-sectional rod, curled over to an elongated ring at one end; tapering to a point at the other end.
Date: 15th century or earlier?

FITTINGS
30). *Fragment of horse-shoe* (Fig. 8.3-8)
Context: 1676. Triconch Room 18 (long gallery). Phase 9: layer sealing industrial activity, mid- to late 6th century SF 1056.
Dimensions: 111 × 56 mm (max) × *c*. 2.5 mm (corroded).
Material: iron.
Fragment of iron horse-shoe, pierced along preserved curving edge by four holes for nails.
Date: 6th century.

31). *Swivel-ring coupling* (Fig. 8.3-8)
Context: 2069. Merchant's House Room 40. Phases 14–15: cultivation soil, 14th to 15th century.
SF 1146.
Dimensions: length: 106 mm; outer diameter of rings: 41 mm; section of rings: 5–6 mm.
Material: iron.
A swivel-ring coupling, consisting of two iron rings joined by a connection rod which loops round one ring and

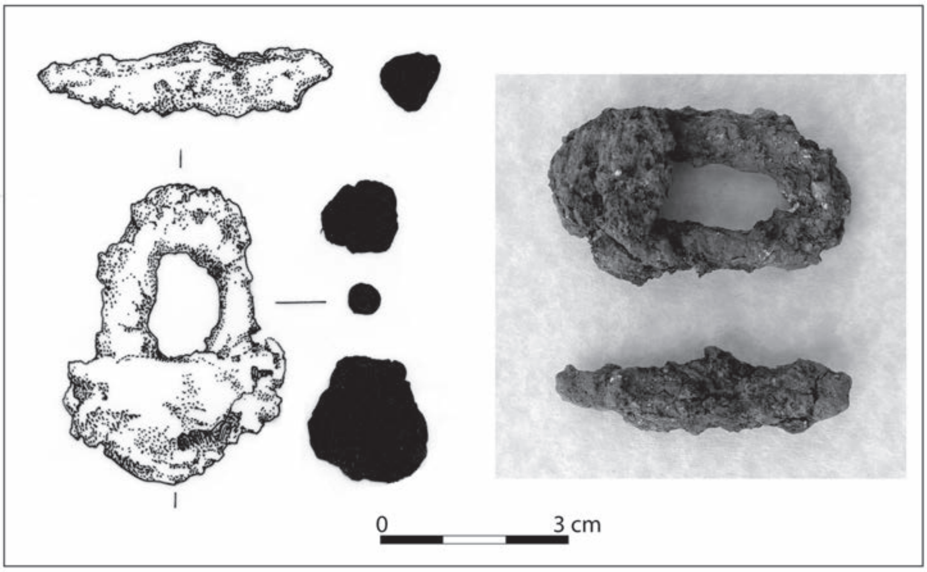


Figure 8.3.9. Oval ring-link of chain (Fe cat. no. 32)

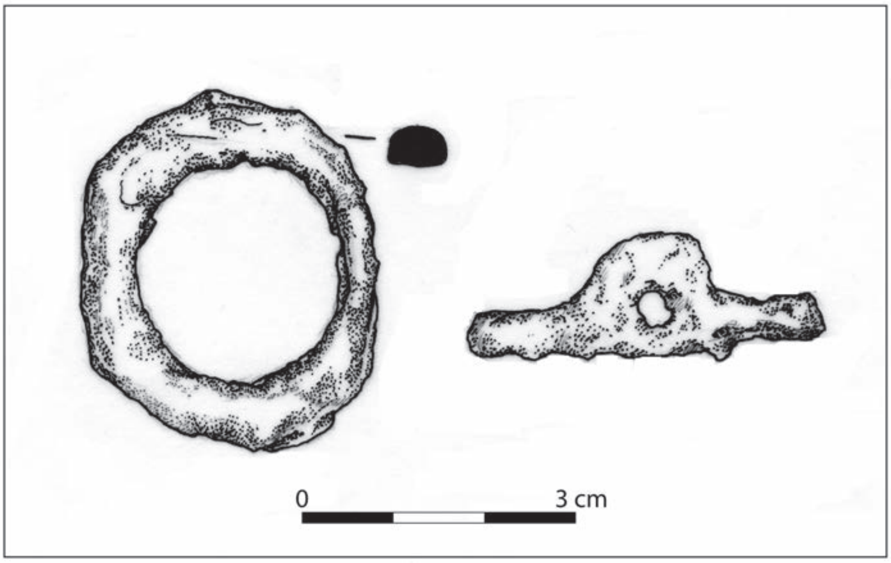


Figure 8.3-10. Ring with pierced lug (Fe cat. no. 35)

perforates the other to form a swivel-joint. A head and a collar secure the rod in position.
Date: 15th century or earlier.

CHAIN
32). *Oval ring-link of chain?* (Fig. 8.3-9)
Context: 3083. Merchant's House Room 37. Phases 14–15: cultivation soil, 14th to 16th century
SF 1959.
Dimensions: Outer diameter: 47 × 24 mm; inner diameter: 31 × 12 mm.
Material: iron.
Possibly a link from a chain; heavily corroded.
Date: 14th to 16th century or earlier.

RINGS
33). *Fragmentary ring*
Context: 4000. Merchant's House Room 40. Phase 10: building collapse/demolition, late 6th to early 7th century (with residual 5th-century pottery).
SF 2416.
Dimensions: 30 × 27 mm; diameter of rod: 7–8 mm.
Material: iron.
Ruptured iron ring; possibly the bend of a hook.
Date: 5th to 6th century.

34). *Iron ring*
Context: 2070. Merchant's House Room 40. Phase 14-15: cultivation soil, 14th to 15th centuries
SF 1197.
Dimensions: Outer diameter: 14 × 15 mm; inner diameter:

9 × 8 mm; section: 1.5–3 mm.
Material: iron.
A small iron ring of round-sectioned wire.
Date: 15th century or earlier.

35). *Ring with pierced lug* (Fig. 8.3-10)
Context: 2087. Merchant's House Room 40. Phases 14–15: cultivation soil, 14th to 15th centuries.
SF 1173.
Dimensions: outer diameter: 40 × 35 mm; inner diameter: 25 × 24 mm; thickness of ring: 4–5 mm; height of lug: 14.5 mm.
Material: iron.
An iron ring with a semi-circular lug, pierced at its base by a circular perforation.
Date: 15th century or earlier.

36). *Iron ring*
Context: 3081. Merchant's House Room 37/38. Phases 14–15: cultivation soil, 14th to 16th centuries.
SF 2047.
Dimensions: outer diameter: 24 × 22 mm; inner diameter: *c*. 14 mm; thickness of ring: 3–4 mm.
Material: iron.
Small iron ring, sub-round-sectioned.
Date: 14th to 16th centuries or earlier.

PLATES
37). *Sub-rectangular plate with tang*
Context: 5038. Triconch Room 19 (south wing). Phase 14+: humic layer with rubble, 13th to 14th centuries or later.
SF 2387.
Dimensions: overall length: 64 mm; width: 34 mm; thickness: 5 mm.
Material: iron.
A sub-rectangular plate with the stub of a tang projecting 11 mm from the middle of one narrow end, and a lug or rivet projecting 8 mm on the longer central axis of one surface. Both narrow ends are gently convex, long sides are straight.
Date: uncertain, 13th to 14th century or later or earlier.

STRIPS
38). *Iron strip*
Context: 1428. Triconch Room 21 (south wing). Phase 10: grave fill of infant burial (1435), late 6th to 7th century.
SF 580.
Dimensions: length: 0.105 m; width: 20–29 mm; thickness: 2–3 mm.
Material: iron.
Strip with curving profile along one side of its length; positioned over the right-hand side of the infant occupant of grave 1435. Found in association with an assemblage of finger-rings (Copper cat. 20).
Date: late 6th to early 7th century.

BARS
39). *Fragment of iron bar*
Context: 4145. Merchant's House Room 38. Phases 8–10: fill of tile-grave of infant (4146), 6th to early 7th century.
SF 2644.
Dimensions: length: 40 mm; diameter of rod: *c*. 8 mm.
Material: iron.
Short length of iron bar smoothly bent at one end, possibly the fragmentary link of a chain.
Found in association with a simple copper earring (Copper cat. 3).
Date: 6th to early 7th century.

4. The iron nails

The iron nails from the site were found for the most part in moderately or severely corroded states, often fragmentary. There does not appear to have been anything approaching uniformity in their sizes. The majority of the more or less completely preserved specimens were in the range 60–90 mm, a minority were smaller around 30–50 mm, and the occasional example larger, up to around 220 mm.

Nails were found in most areas, in both the peristyle *domus* and the Merchant's House, for the most part concentrated in 6th-century, predominantly Phase 9, contexts, except in the open spaces, the peristyle court (Room 18) and the courtyard of the Merchant's House (39), where considerable numbers were found in later Phase 12–15 contexts, almost certainly redeposited from early levels (Fig. 8.4-1).

Nails were found in a range of contexts in the central court of the peristyle, for the most part in Phases 12–14, 10th- to 14th-century levels of humic accumulation (Fig. 8.4-2). The 19 nails from this group are likely to have been all residual from the 5th–6th century and included a cluster of seven very large examples (124–166 mm) from 3016. The largest concentration of nails in the complex came from Phase 9 mid- to late 6th-century contexts in the long gallery (Room 18), where there were 139 in all, including 22 from 5005, a layer sealing industrial activity, and 40 from 5071, a deposit of detritus associated with a furnace. A moderate quantity was found in the rooms of the southern range of the peristyle: 43 in Room 19, including *c*. 35 very large nails from Phase 8 mid-6th-century contexts; just three from Room 20; 59 from Room 21, the majority from Phase 9 mid-6th-century contexts, including 15 from 1415, an occupation deposit; 16 from Room 22; and 23 from Room 23, with a major concentration of 14 in 5014, a Phase 7 early 6th-century tile dump or roof collapse. Some 53 nails were found in the apsidal reception room (Room 24), the great majority in 6th-century contexts of Phases 7 and 8, including 34 from 1300, an early 6th-century trample/occupation deposit immediately over the late 4th-century mosaic pavement of the room (see Plate 8.1).

From Room 25, the late 4th-century vestibule to the west walk of the peristyle, there were 33 nails, 17 from 5th-century contexts (Phases 6 and 7), of which six were from

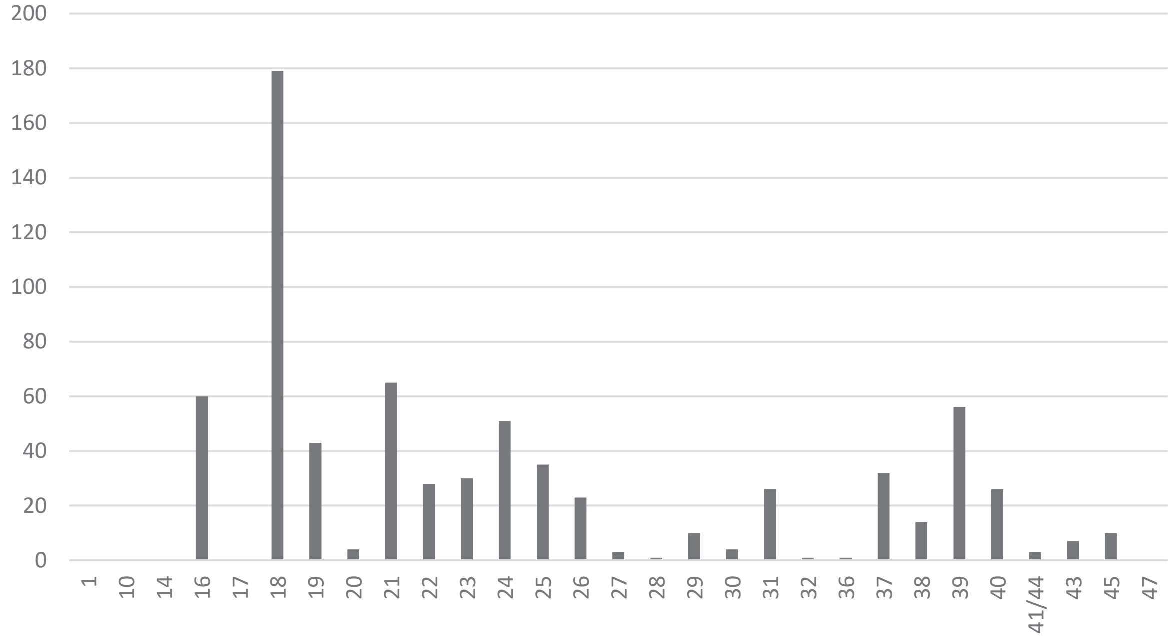


Figure 8.4-1. Fe nails recovered by room

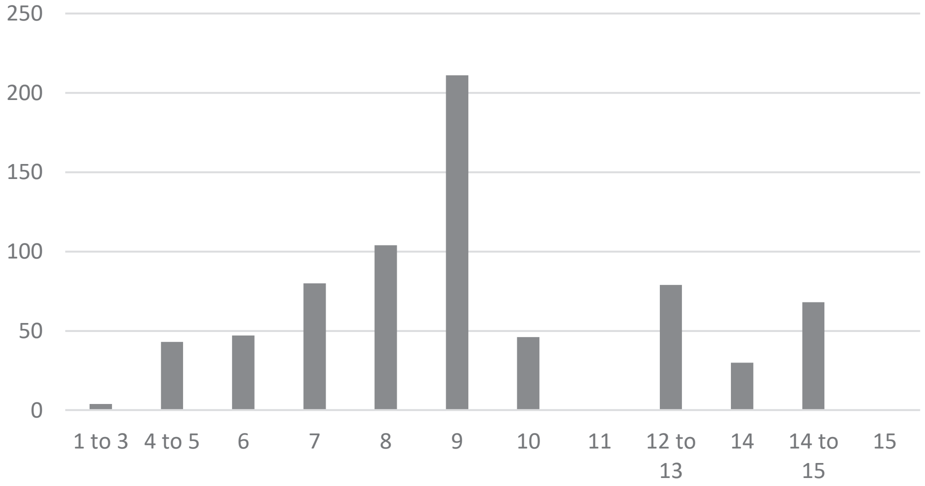


Figure 8.4-2. Fe nails recovered by phase

1490, a mid-5th-century trample deposit over the mosaic floor, and seven from 1449, a tile dump of AD 450–500; and 13 from Phase 12, 10th-century levels. There was a similar concentration of nails in 5th-century contexts in the neighbouring Room 26, 14 out of 21 in all from this room, but only three in Room 27 opposite. In Room 29 there were just 10 spread across levels from the 5th to the 14th century, and in Room 31 there were 27 nails, with a concentration in mid-6th century contexts (Phase 8), 13 from a possible surface (1523) and 11 from a layer of tile rubble. One lone nail was found in a 5th-century (Phase 5–6) level in Room 28, the little octagonal vestibule to the bath-suite. In the Merchant's House complex, 30 nails were found in the 5th-century two-storeyed structure Room 37, with a concentration of 20 in Phase 6 levels of the third quarter of the 5th century, including 12 in an occupation deposit (4018). From the neighbouring Room 38 there were 14 nails, for the most part from medieval levels (Phases 13a–15). A total of 26 nails were retrieved from Room 40, the 6th-century two-storeyed building on the west side of the complex, 15 in late 6th- to early 7th-century (Phase 10) levels, with eight from 3105 (the collapse of the roof of the structure). The remainder were from later medieval Phase 14a–15 contexts, a grave-fill and cultivation soil. A scattering of nails were found in other rooms here including nine in the late 14th-century tower, Room 45, all in 13th- to 15th-century (Phase 14a–15) levels in cultivation soil.

For the most part, it was not possible to relate individual concentrations of nails with identifiable wooden constructions in particular spaces within the complex. However, the cluster of very large nails (124–166 mm) found in the peristyle courtyard (Room 16, context 5301) must have been used in some major structural context in the vicinity (Fig 8.3-7). A concentration about 35 very large (*c*. 130 mm) nails found congealed in a mass in a mid-6th-century context in Room 19, at the east end of the south range of the *domus*, may be the contents of a carpenter's fallen bag of nails abandoned in this period. An assemblage of medium to large nails in 5014, an early 6th-century context, may derive from a roof-collapse in Room 23, while 34 nails, mostly of good size (*c*. 55–90 mm) from 1300, an early 6th-century occupation layer over the mosaic floor in the abandoned apsidal reception hall (Room 24) and a scattering of others from later 6th-century contexts in the hall may come from temporary wooden structures associated with post-holes knocked through the pavement to shelter the blacksmiths' hearths that were operating in this space in this period (Bowden *et al.* 2011c, 96). Similarly, in the Merchant's House, 20 mostly medium to large nails from contexts from the latter half of the 5th century in the two-storey building, Room 38, may derive from the roof-structure or other internal wooden features, and 39 nails (*c*. 40–90 mm) from 6th-century and later residual contexts in Room 39, the courtyard of the Merchant's House are likely to have come from the wooden structural elements and fittings associated with the surrounding 5th- and 6th-century buildings in this area. The medium and large nails used over the complex by its 5th- and 6th-century occupants, with their characteristic irregularly rounded sub-domical heads, and tapering square-sectioned shafts, appear to have been designed for use in quite rudimentary structures, probably with simple abutting nail-fast joints securing the contignations of the timbers.

5. Lead artefacts

With one exception, the assemblage of lead artefacts from the Triconch Palace is unexceptional, consisting for the most part of fragments of sheet and small sections of strip. In addition, there is a small disc, a little open ring, a square-sectioned tube, a short section of rod, a small nail, two lumps, one with a rectangular impression in its planar surface, and a small pierced drum, probably a modern weight for a line. The great majority of the material is from 5th- to 6th-century contexts.

The exception is a small circular openwork pendant, cast in lead, forming a cross within a framing halo, with a little eye for suspension at the top (cat. 1). The cross and circling frame are embellished with running stipples, presumably referencing gem-stones or pearls. Lead cross pendants of this design have been found elsewhere in Albania, in excavations at Dalmaces and at Phoenice, at Corinth, and at Sagalassos in Pisidia, this last in a 5th/6th-century context. The Butrint pendant forms part of a quite extensive assemblage of amuletic artefacts and imagery, many overtly Christian, featuring the cross, associated with the Triconch *domus* and the Merchant's House. These included pendants and rings, a copper cruciform buckle and a bone plaque, as well as motifs incorporated into window grills and floor mosaics (Mitchell 2007 and Chapter 10, this volume).

An interesting group of pieces comprises three lead strips, each bent along its length to form a trough (cat. 2, 3 and 4). These differ in length but have similar sectional dimensions; all three were found in early/mid-5th-century contexts. Clearly they were designed for a particular function, yet to be identified.

No obvious lead waste or other evidence for lead-working was found in the area of the *domus* or the Merchant's House.

PENDANT

1). *Small pendant with openwork cross* (Fig. 8.5-1)
Context: 5409. Triconch Room 29 (west wing). Phases 5–6: silt layer sealing post-holes, AD 400–50.
SF 3154.
Dimensions: overall height: 31 mm; diameter of disc: 22 mm.
Material: lead.
A small cast lead pendant surmounted by circular ring for suspension, cast together. The disc is pierced to form a cross within a circular frame or halo. The arms of the cross and the framing circle are ornamented with single sequences of raised pearled stipples. The pendant is very slightly convex. Casting flashes of lead still adhere all round the object and in the suspension ring. This suggests that the pendant may never have been worn. However, the stipples on the obverse show signs of wear and the rear face is somewhat abraded. There is no obvious evidence of wear on the suspension loop.

Pendants of similar design are known from excavations in the cemetery at the fortress of Dalmaces in central Albania (Spahiu 1971, pl. VII, 7; Nallbani 2002, 328, cat. 676, pl. 85), from Kruja (Nallbani 2002, 328, cat. 675, pl. 84) in north-western Albania, and from Phoenike just to the north of Butrint (Budina 1971, pl. X, 1). An almost identical example has been found in a 6th- to 7th-century context in Bouleuterion 3 at Sagalassos, in southern Turkey, now in the Archaeological Museum at Burdur (Sagalassos SA-2000-B3-63; Talloen 2003, 246–7, cat. 209)). Later versions of the type have been found at Corinth (Davidson 1952, 259, pl. 111, nos 2087–92).
Date: Probably first half of 5th century.
Bibliography: Mitchell 2007, 293, fig. 10d.

ARTEFACTS

2). *Strip bent to form a trough* (Fig. 8.5-2)
Context: 3190. Merchant's House Room 37. Phases 3–5: backfill of well, early to mid-5th century.
SF 2085.
Dimensions: length: 99 × 9 × 9 mm. Thickness of lead

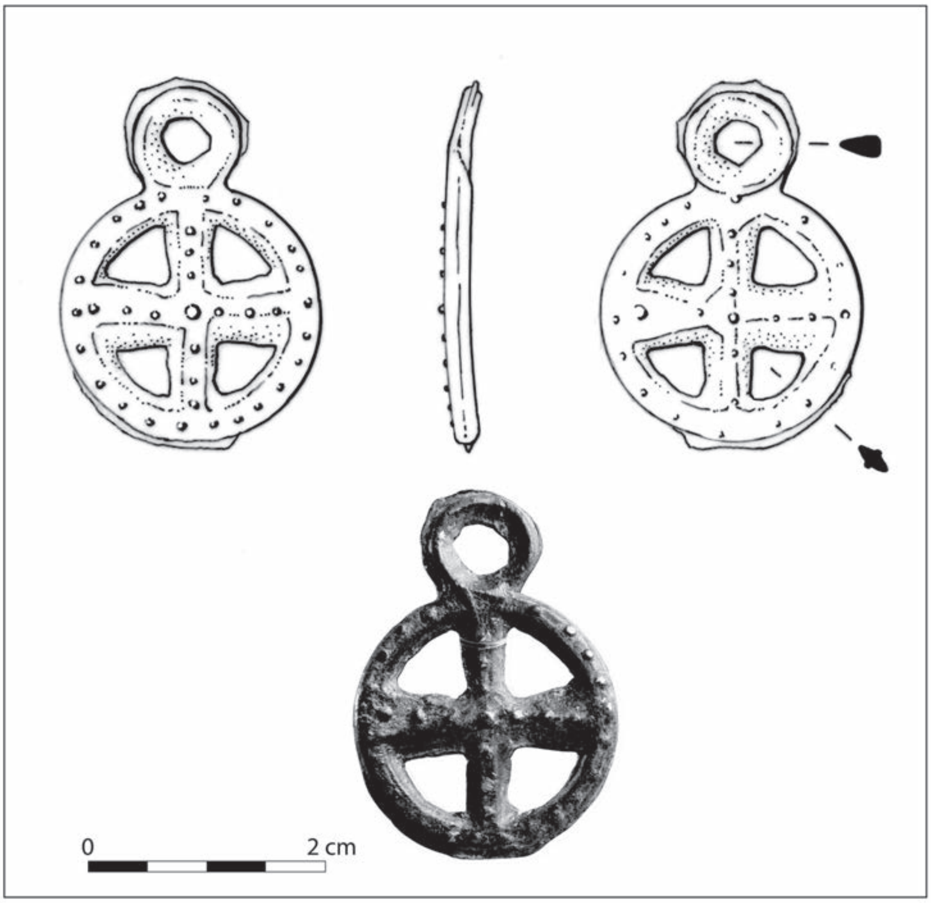


Figure 8.5-1. Small pendant with openwork cross (Pb cat. no. 1)

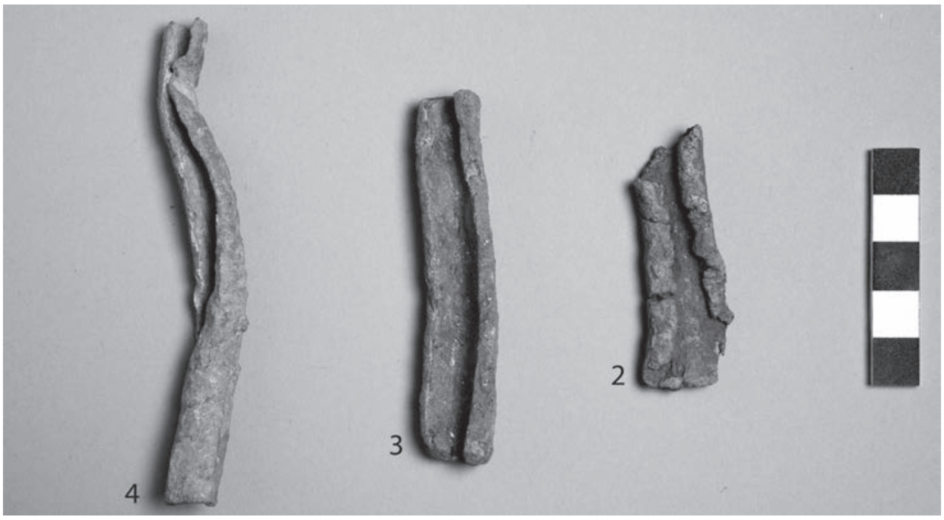


Figure 8.5-2. Three lead strips, possibly window cames (Pb cat. nos 2, 3 and 4)

sheet: 1.5–2 mm.
Material: lead.
Strip of thick lead sheet bent along its length to form a trough; possibly a came for bedding a plane of glass.
Date: probably early to mid-5th century.

3). *Strip bent to form a trough* (Fig. 8.5-2)
Context: 1964. Triconch Room 22 (south wing). Phase 5: bedding for surface, early to mid-5th century (AD 425–50). SF 1989.
Dimensions: length: 59 × 9 × 9 mm. Thickness of lead sheet: 2 mm.

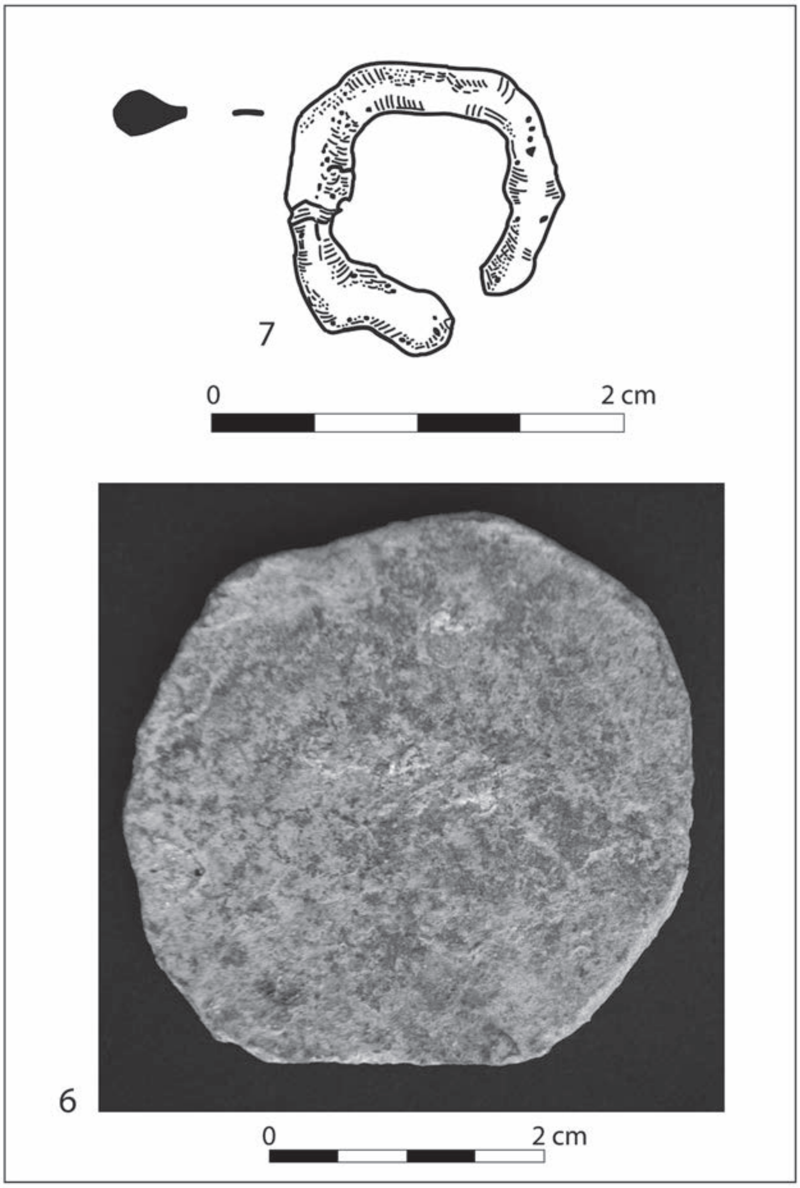


Figure 8.5-3. Lead disc and small ring (Pb cat. nos 6 and 7)

Material: lead.
Strip of thick lead sheet bent along its length to form a trough; possibly a came for bedding a plane of glass.
Date: early to mid-5th century or earlier.

4). *Strip bent to form a trough* (Fig. 8.5-2)
Context: 5302. Triconch Room 23 (south wing). Phase 5: clay layer representing dump or demolition, early to mid-5th century (AD 425–50).
SF 3026.
Dimensions: length: 77 × 10 × 13 mm. Thickness of lead sheet: 3–5 mm.
Material: lead.
Strip of thick lead sheet bent along its length to form a trough; possibly a came for bedding a plane of glass.
Date: probably early to mid-5th century.

5). *Tube*
Context: 1490. Triconch Room 25 (western entrance vestibule). Phase 6: trample deposit, mid- to late 5th century.
SF: none.
Dimensions: length: 49 mm; section: 5 × 5 mm.
Material: lead.
Short length of hollow square-sectioned rod/tube, closed at one end.
Date: mid- to late 5th century.

6). *Sub-circular lead disc* (Fig. 8.5-3)
Context: 1422. Triconch Room 26 (west wing). Phase 7: tile rubble, early 6th century.
SF 2110.
Dimensions: diameter: 43–45 mm; thickness: 3–4.5 mm.
Material: lead.

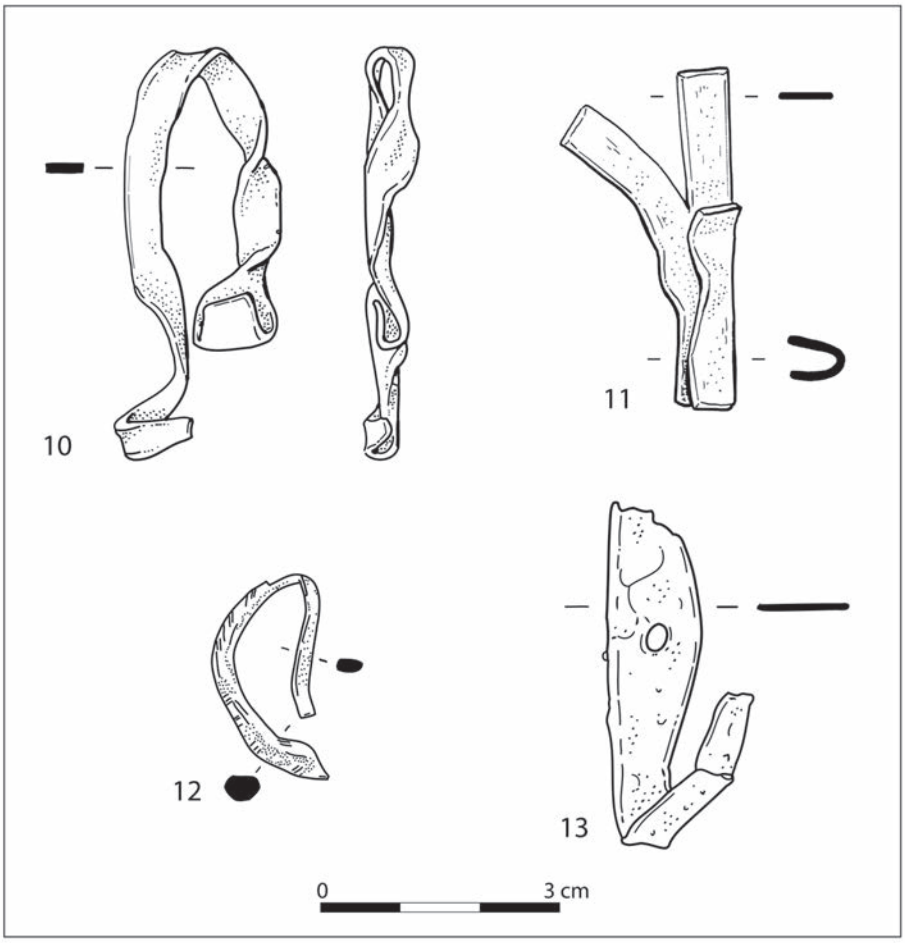


Figure 8.5-4. Lead strips (Pb cat. nos 10, 11, 12 and 13)

Sub-circular lead disc; both surfaces smoothly finished.
Date: early 6th century or earlier.

7). *Small ring* (Fig. 8.5-3)
Context: 3105. Merchant's House Room 40. Phase 10: roof collapse, late 6th to early 7th century.
SF 2056.
Dimensions: diameter: 13 mm; thickness of wire: *c*. 2 mm.
Material: lead.
Small lead ring in two joining fragments of irregularly sectioned lead wire/rod; the ends just meet.
Date: late 6th to early 7th century or earlier.

8). *Lump of lead with square impression*
Context: 1411. Triconch Room 25 (western entrance vestibule). Phase 12: clay deposit or rough surface, early to late 10th century (with later intrusive material).
SF 3317.
Dimensions: 48 × 45 × 13 mm.
Material: lead.
Sub-circular sub-domical lump of lead with a 20 × 20 mm square impression sunk into the lower flat surface.
Date: 10th century or earlier.

9). *Small circular drum*
Context: unstratified. Triconch Room 19 (south wing).
SF: none.
Dimensions: diameter: 18–20 mm; length: 10–12 mm.
Weight: 27 grams.
Material: lead.
Small circular drum of lead, pierced with a 2–3 mm off-centre perforation through its length. Possibly a weight for a (fishing?) line.
Date: unknown. Modern?

STRIPS

10). *Small bent lead strip* (Fig. 8.5-4)
Context: 1452. Triconch Room 22. Phase 9: rubble deposit, mid-to late 6th century (*c*. AD 550–75).
SF 662.
Dimensions: length: 53 mm, (*c*. 100 mm unbent); width: 4–5 mm; thickness: *c*. 1 mm.
Material: lead.
Strip of lead, twisted and bent.
Date: 6th century or earlier.

11). *Tri-furcating lead strip* (Fig. 8.5-4)
Context: 1490. Triconch Room 25 (western entrance

vestibule). Phase 6: trample deposit, mid- to late 5th century.
SF: none.
Dimensions: (bent) length: 43 mm; max width: 20mm; thickness: 2 mm.
Material: lead.
Short length of lead strip, cut at one end to form a three-part splay; one splay missing, apparently subsequent to having been bent back on itself.
Date: mid- to late 5th century?

12). *Small fragment of lead strip* (Fig. 8.5-4)
Context: 3335. Triconch Room 22 (south wing). Phase 3?: fill of drain, early 5th century.
SF 2139.
Dimensions: length: 27; with: 6 > 3 mm; thickness: 1–2 mm.
Material: lead.
Small scrap of lead strip, bent over on itself.
Date: early 5th century or earlier.

13). *Tapering perforated lead strip* (Fig. 8.5-4)
Context: 4099. Merchant's House Room 40. Phase 9: post-hole fill, late 6th century.
SF 2536.
Dimensions: length, bent: 43 mm (originally *c*. 65 mm); width: 12 > 3 mm; thickness: *c*. 1 mm.
Material: lead.
Short strip lead, swelling and tapering, perforated in middle by a 3 mm round (nail) hole.
Date: late 6th century or earlier.

NAILS
14). *Small nail?*
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF 937.
Dimensions: length (bent): 20 mm; (unbent): *c*. 39 mm; shaft: 5 × 3 > 2 × 2 mm.
Material: lead.
Complete but bent lead nail-like object, with tapering sub-rectangular-sectioned shaft.
Date: 6th century or earlier.

6. Glass artefacts

The Triconch excavations produced only a small assemblage of artefacts in glass. The majority came from 5th- to 6th-century contexts and probably all were of Roman or late Roman manufacture. These included a handful of items for bodily adornment, a fragment of a bangle, a pin-head, a bead and a faux gemstone. There was also a small group of pieces from architectural contexts comprising two fragments of wall veneer and five glass *tesserae* from mosaic surfaces. There were no obvious concentrations or clusters.

The presence of four fragments of waste, two from the peristyle courtyard, two from the Merchant's House, suggests that glass was worked on the site at some stage, probably in the late Roman period.

ARTEFACTS FOR BODILY ADORNMENT
1). *Pin-head* (Fig. 8.6-1)
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF 1135.
Dimensions: diameter of head: 7 mm; diameter of shaft: 4 mm.
Material: apparently clear glass with silvered weathering.
The small sub-spherical head of a glass pin, snapped off at the top of the hollow shaft.
Date: early 6th century or earlier

2). *Faux gemstone* (Fig. 8.6-1 and Plate 8.2)
Context: 5362. Triconch Room 16 (courtyard). Phase 9 (mid- to late 6th century).
SF 3119.
Dimensions: 15 × 11 × 3.5 mm.
Material: pale green glass.
Small faux gemstone of pale green glass, cut to a truncated pyramid. Remains of iridescent sheen. Possibly a gaming counter. A considerable number of glass pieces of this kind have been found in excavations at Corinth (Davidson 1952, 223, 225–6, cat. 1778–1901, 101).
Date: 10th to 12th century or earlier.

3). *Bead*
Context: 4051. Merchant's House Room 39 (courtyard). Phase 8: silt accumulation, early to mid-6th century.
SF 2607.
Dimensions: length: 7 mm; diameter: 4.5 mm.
Material: blue glass with silvered weathering.
A small, slightly elongated round-sectioned bead pierced by a 1.5 mm perforation.
Date: mid-6th century or earlier.

4). *Fragment of bangle/bracelet* (Fig. 8.6-1 and Plate 8.2)
Context: 2064. Merchant's House (exterior of city wall). Phase 14/15+: cultivation/rubble deposits, 14th to 15th century and later.
SF: none.
Dimensions: 20 × 8 × 4 mm.
Material: deep blue glass.
A short length of slightly curving glass strip, broken at both ends. This is a short fragment of a bangle/bracelet. The join in the circular band is partly preserved.
Date: Roman or late Roman.

VENEER FILLETS
5). *Glass strip, possibly a fillet* (Plate 8.3)
Context: 1759. Triconch Room 18 (long gallery). Phase 6: green silt deposit possibly from flooding, mid- to late 5th century
SF 1102.

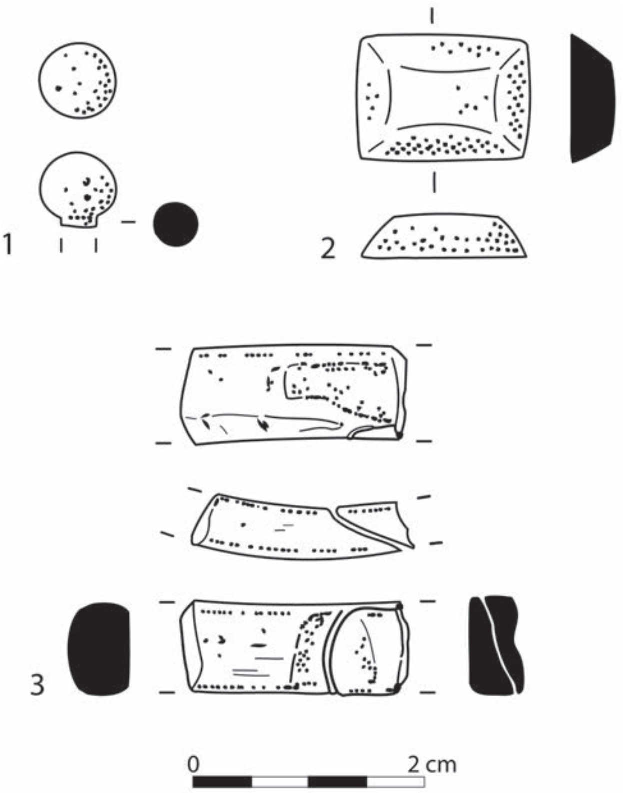


Figure 8.6-1. Artefacts for bodily adornment (Glass artefact cat. nos 1, 2 and 4)

Dimensions: length: 55 mm; width: 11–12 mm; thickness: 4 mm.
Material: deep green glass with silvered weathering.
A strip of glass, lightly tapered, fractured at both ends; three edges rounded; traces of a narrow lip along the fourth edge. Possibly a fillet from an *opus sectile* wall revetment.
Date: 5th century or earlier.

6). *Glass fillet*? (Plate 8.3)
Context: 1114. Room unknown. Phase 15, unstratified topsoil.
SF 1034.
Dimensions: length: 48 mm; width: 16 mm; thickness: 9.5 mm.
Material: blue glass.
A short strip of blue glass, the display-face with a rounded arched section, the rear face levelled; the strip rounded to a half-circle at one end, broken at the other.
Possibly a fragment of a fillet from an *opus sectile* wall-revetment.
Date: uncertain; probably 5th to 6th century or earlier.

TESSERAE
7). Tessera
Context: 1227. Triconch Room 17 (north wing). Phase 1: demolition rubble, late 3rd to 4th century.
SF: none.
Dimensions: 8 × 7 × 10 mm.
Material: blue glass.
A blue glass *tessera* for use in mosaic.
Date: late 3rd to 4th century or earlier.

8). Tessera
Context: 4100. Merchant's House Room 37. Phase 3–5: collapsed *pisé* wall or floor make-up, early 5th century.
SF: none.
Dimensions: 10 × 10 × 13 mm.
Material: pale blue glass.
A pale blue glass *tessera* for use in mosaic.
Comment: a *tessera* of black stone, 11 × 9 × 10 mm, was found with this *tessera*.
Date: early 5th century or earlier.

9). *Two* tesserae
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF 987.
Dimensions: a). 7 × 7 × 10 mm; b). 8 × 6 × 7 mm.
Material: mid-blue and pale turquoise glass.
Two glass *tesserae* for use in mosaic, possibly from the 4th-century pavement of the room.
Date: probably 4th century or earlier.

10). Tessera
Context: 4026. Merchant's House Room 40. Phase 13a: foundation deposit in late post-built structure, early 11th to 12th century.
SF 2403.
Dimensions: 8 × 8 × 11 mm.
Material: clear green glass with silvered weathering.
A green glass *tessera* for use in mosaic.
Date: later 4th century or earlier.

WASTE
11). *Fragment of glass-working waste*
Context: 3042. Triconch Room 16 (courtyard, east portico). Phase 4: pre-triconch levels cut by triconch foundations, early 5th century.
SF: none.
Dimensions:
Material: fragment of glass-working waste
Date: early 5th century or earlier.

12). *Fragment of glass slag*
Context: 5322. Triconch Room 16 (courtyard). Phases 12–13: levelling deposit, early 10th to late 12th century.
SF: none.
Dimensions: 40 × 20 × 18 mm.
Material: greenish-yellow glass waste.
Fragment of vitrified material – unidentified, possibly glass. Flow-smooth on one surface; rough, dark, and cindery on the other surface.
Date: 10th to 12th century or earlier.

13). *Fragment of vitrified material*

Context: 3127. Merchant's House Room 45 (tower). Phase 14?: layer predating construction of tower?
SF: none.
Dimensions:
Material: possibly glass.
Fragment of vitrified material – unidentified, possibly glass. One surface level, one rough.
Date: uncertain; pre-14th century.

14). *Fragment of glass-working waste*
Context 2051. Merchant's House area. Unphased: topsoil.
SF: none.
Dimensions:
Material: glass-working waste.
Small fragment.
Date: uncertain.

7. Stone artefacts

The stone artefacts form a varied assemblage. A few, like the window grills from the façade of the triconch banqueting hall, or fragments of marble veneer from Room 37 of the Merchant's House, can be associated with the fabric of the *domus*, at particular phases of construction. However, the great majority are essentially stray finds, some in early contexts and some from contexts almost contemporary with the construction of the *domus*, while others were in contexts deposited centuries after their initial introduction to the site.

Just three fragments of statuary were found on the site, possibly from the same draped figure from the Roman imperial period, comprising two fragments from early 5th-century contexts in Room 23 in the southern range of the peristyle (cat. nos 1 and 2) and a cylindrical fragment, possibly from the naked arm of a figure, from a late medieval context from the Merchant's House (cat. 3).

The three spindle-whorls, all fashioned from purple porphyry, appear to be late Roman in type, although none was found in an early context. One was from an early medieval context in the courtyard of the peristyle (cat. 4), the other two from a late medieval cultivation soil (cat. 5) and an unstratified surface context in the area of the Merchant's House (cat. 6). These are carefully shaped pieces, elegantly finished, two with incised decoration. They may have been in use during the last phases of full occupation of the Roman *domus*. There is only one stone loom-weight, from a secondary context in Room 39, the courtyard of the Merchant's House (cat. 7), and another large weight from an unstratified context in the *domus* (cat. 8).

Fragments of two marble basins were found in the centre of the house, one from the courtyard (cat. 9) and another from Room 22 (cat. 10). Both were from secondary, 5th-century contexts and could well have formed part of the furniture of the house in one of its 4th-century phases. There is also a small roughly worked limestone box from an early medieval context in the courtyard of the peristyle (cat. 11).

Circular quern-stones were found in all parts of the site, all but one broken fragments (cat. nos 12–25). The one which is almost complete has a diameter of 0.395 m and is from an early to mid-5th-century context (cat. 12). Where enough is preserved of other fragments to calculate the original size this seems to have been in the order of 0.3–0.5 m diameter (cat. nos 13, 14, 17, 19, 20, 25). The stone is not uniform over the assemblage but the majority is either in a grey volcanic grit-stone or a lighter oatmeal-coloured conglomerate. All but one of the surviving quern-stones come from 5th- or 6th-century contexts (the odd-one out is from a 10th- to 12th-century levelling deposit in the courtyard of the peristyle, cat. 24). It would appear that they were a feature of the use of the site in its 5th- and 6th-century post-*domus* phases. Presumably they were used for the grinding of grains of various kinds in the preparation of food-stuff, possibly for consumption in domestic contexts in residential areas in other parts of Butrint.

Among the miscellaneous stone artefacts there is a large round-headed stopper for a vessel from a 5th-century context in Room 29 in the west range of the peristyle (cat. 27), and a fragment of a crucible for working copper from a 6th-century context in the courtyard of the Merchant's House (cat. 30). This last is evidence for copper-working in the vicinity in this period, possibly in kilns in the abandoned rooms of the southern range of the peristyle, a few metres to the east (Bowden *et al.* 2011c, 96–105).

Aside from a residue of amorphous flakes and scraps, the rest of the assemblage of worked stone from the site is architectural. There were three elements of fixed furniture. Two broken sections of table-tops, both from Room 37 (cat. nos 35–6), both from the same late 5th-century context, one with a decorated edge, may have belonged to the fittings of this house in one of its 5th-century phases. A further section from an ornately decorated article of furniture was retrieved from the make-up of the Phase 4 mosaic pavement of *c.* AD 400, in the west walk of the peristyle (cat. 34). This was a broken slab with a lip along the top, probably to support a table-surface, originally with two upright panels carved in sunk-relief flanking a plain central panel. The surviving relief features two fruits, possibly pomegranates, on a short curling stem. This would appear to be from the display front of an article of fixed furniture, possibly from a *stibadium*, the curling sigma-shaped dining couch in fashion throughout the Roman world from the 3rd century on (Dunbabin 2003, 43–6, 169-74). An elaborate example with a highly ornate front has been found in excavations at Faragola, Ascoli Satriano (Volpe *et al.* 2005, 274–83; 2006). Other *stibadia* with elaborate decoration are illustrated in 6th-century manuscripts from the eastern Mediterranean, the Gospels from Sinope and Rossano (Grabar 1966, figs 227, 230).

Perhaps the most significant items were fragments of four openwork window grills found in the 6th-century fill of a drain in the east portico of the peristyle (cat. 37). These must have fallen from four windows high up on the façade of the triconch *triclinium*. Two featured a cruciform *chi-rho* monogram and two a six-pointed star in their imbricated tracery. These were the display windows of the triconch, which was abandoned before completion in the first years of the 5th century. On the one hand the *chi-rho* tracery announces the Christian faith of the occupants; on the other this and the six-pointed stars would have been understood as apotropaic devices to filter out any invading malignant spirits (Mitchell 2007, 287–9).

Fragments of three Ionic capitals (cat. nos 39, 43 and 47) and six Corinthian capitals (cat. nos 40, 41, 42, 44, 45, 46,) were found in the courtyard of the peristyle (Room 16) and adjoining rooms, including two Ionic fragments in Room 27 to the west and two Corinthian fragments in Room 19 in the south range. It is likely that some of these were designed for the embellishment of the *domus* in one or more of its phases. Although it was not possible to associate any of these with particular features of the building with any certainty, given their find-spots, it is a possibility that the Ionic capitals were deployed on the *tribelon* columnar arcade screens in the Phase 3 entrance vestibule (Room 25; Bowden *et al.* 2011c, 24–8, figs 2.24–25). If this is the case, then these screens must have fallen by the early 6th century, the date of the contexts in which one fragment was found in the adjacent Room 27 (cat. 39).

Of particular interest are three peculiar capital blocks for delicate piers with twin colonettes, one of which was found in a *c.* AD 400 context in Room 22, another an unstratified find from the area of the *domus* and the third from some unrecorded location at Butrint (cat. nos 38, 48 and 49). The depositional context of the one in Room 22 indicates that these are from the 4th century and the fact that two were found on the Triconch site suggests that they may have formed part of the fabric of the house there in one of its early phases. They are uniform with an elongated pier shaft with engaged colonettes at each end, of slightly larger scale, also found on the site of the *domus*, unstratified, (cat. 52). It is unclear in what kind of context these bases and shafts would have been deployed.

Apart from a range of column fragments, mostly from the courtyard of the peristyle, and the peculiar double-colonnette shaft (cat. 52), two drums from large heart-shaped columnar corner piers of a peristyle or basilical building were found lying in unstratified surface contexts, just outside the 5th-century city wall, slightly to the east of the *domus* (cat. 51). Corner piers of this kind were in use between the 4th century BC and the 6th century AD, particularly in the eastern Mediterranean basin, and instances from the 4th and early 5th century AD are not uncommon. However, there are no indications of a colonnade in the *domus* from which these drums might have come.

Three fragments of profiled door-frames, all in Proconnesian marble, were found in the south range of the peristyle (cat. nos 55, 56, 57, Rooms 18 and 22). They may well have come from doors of rooms in this wing, although none could be precisely located.

Beyond this there are a small number of fragments of cornice- and base-mouldings from the rooms on the south and west sides of the peristyle and the Merchant's House (cat. nos 59–70), and a larger number of broken fragments of marble veneer (cat. nos 72–100). The veneers are mostly of white marbles, with quantities of Carystian green (*cipollino*) and Proconnesian, some Docimion (*pavonazzetto*), and also fragments of Thessalian green (*verde antico*), porphyry, *rosso antico* and some dark-grey stones. Ten fragments of large-crystalled white marble veneer with plaster still adhering to the rear surfaces were found in a 5th-century context in the western walk of the peristyle and may have been stripped from a wall in the vicinity (cat. 83). A concentration of 11 fragments of Carystian green marble (*cipollino*) from Room 37 of the Merchant's House (cat. 88), may have been reused in a floor-surface on the ground floor or may possibly have fallen from the upper chamber of the Phase 6 two-storey house on this site, where they could have revetted the lower walls of a room of some distinction. The five fragments of Docimian are concentrated in the west wing of the *domus* (Rooms 31 and 27). Finally, interesting light is thrown on the domestic aspirations of the occupants of the Merchant's House in the post-*domus* phase of the site by a fragment of marble revetment in Carystian green (*cipollino*) marble, found in an early 6th-century context in the courtyard (cat. 101, Room 39). The display-face of the veneer is

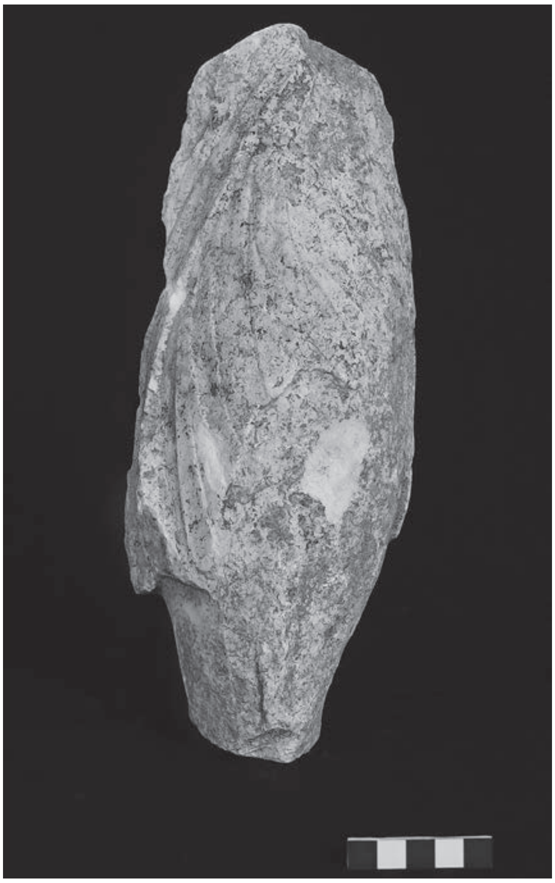


Figure 8.7-1. Fragment from a draped statue (Stone cat. no. 1)

painted with parallel bands of brown against yellow, to achieve a particularly striking polychrome effect and so replace and enhance the natural veining of the stone. This is an old Roman piece of wall veneer apparently reused and improved by the occupants of this part of the site in the course of the 5th century to enhance one of the newly erected domestic dwellings.

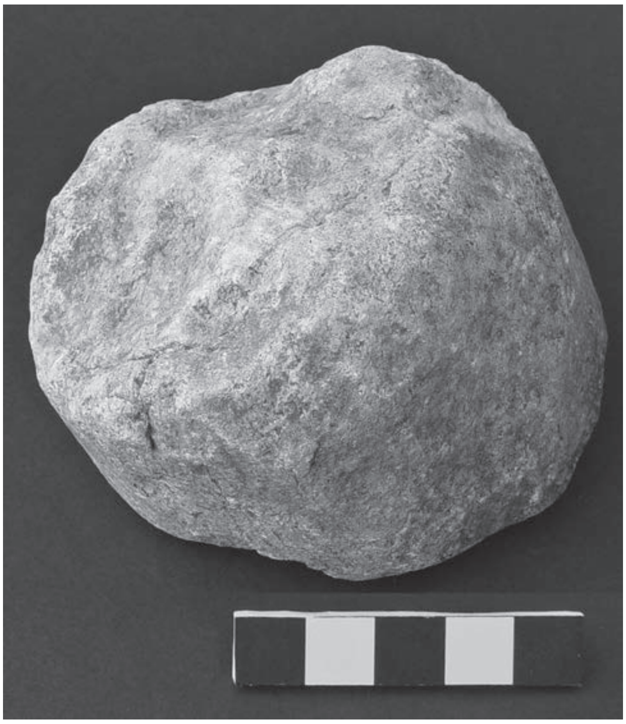


Figure 8.7-2. Probable fragment of arm from a statue (Stone cat. no. 3)

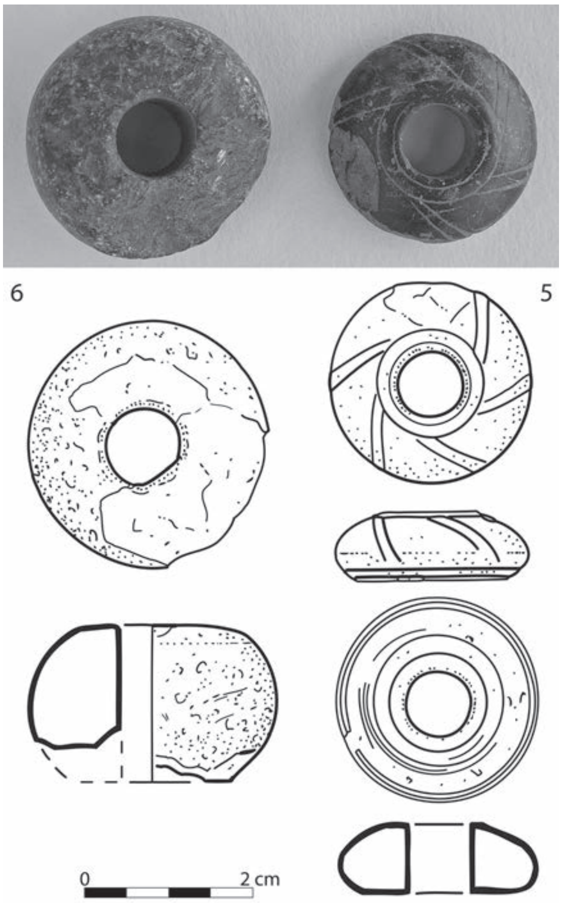


Figure 8.7-3. Porphyry spindle-whorls (Stone cat. nos 5 and 6)

STATUARY

1). *Fragment from a draped statue* (Fig. 8.7-1)
Context: 5343. Triconch Room 23 (south wing). Phase 5: rubble layer, *c*. AD 420–50.
SF 3101.
Dimensions: 0.322 × 0.115 m × 90 mm.
Material: fine-crystalled white marble.
Fragment from the draped thigh and knee of a figure carved in high relief. The drapery is rendered in elegant, regular, layered pleated configurations.
Date: Roman, early imperial.

2). *Fragment of drapery from statue*
Context: 5351. Triconch Room 23 (south wing). Phase 5: rubble layer, *c*. AD 420–50.
SF 3147.
Dimensions: 0.270 × 0.150 × 0.11 m.
Material: medium/fine-crystalled white marble.
Fragment from a large draped figure. One face worked; all others sides fractured.
Date: Roman imperial.

3). *Fragment of arm from a statue?* (Fig. 8.7-2)
Context: 2084. Merchant's House Room 39 (courtyard). Phase 14a: cultivation soil, 13th to 14th century.
SF 1168.
Dimensions: diameter: 80 mm; length: 40–55 mm.
Material: fine crystalline limestone.
Cylindrical-sectioned fragment of carved limestone, broken at both ends. Possibly from the arm of a figure, possibly from a colonnette.
Date: Roman, early imperial.

SPINDLE-WHORLS

4). *Fragmentary porphyry spindle-whorl*
Context: 5547. Triconch Room 16 (courtyard). Pre-Phase 12: sand-silt layer, largely unexcavated, pre-10th century.
SF 3311.
Dimensions: 22 × 8 mm; height/thickness: 12 mm; original diameter: *c*. 23 mm; original height/thickness: *c*. 13–14 mm; diameter of perforation: *c*. 9 mm.
Material: porphyry.
Fragment of a round porphyry spindle-whorl, with a central 9 mm perforation. The outer edge is decorated with a running zig-zag of four parallel incisions. Broken across the perforation.
Date: uncertain; probably 5th to 7th century.

5). Spindle-whorl (Fig. 8.7-3 and Plate 8.4)

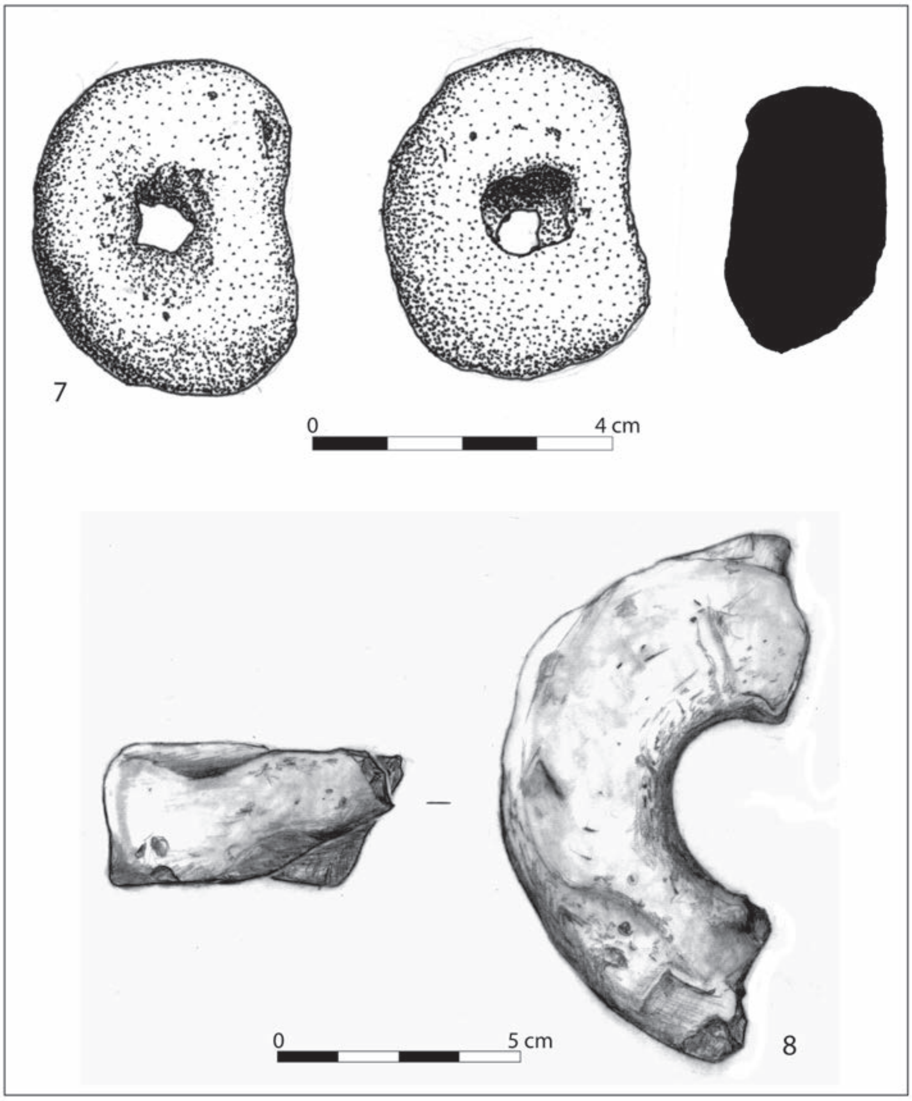


Figure 8.7-4. Loom-weight (Stone cat. no. 7) and fragment of a large stone weight (Stone cat. no 8).

Context: 3029. Merchant's House Room 40. Phase 14a: cultivation soil, 13th to 14th century.
SF 2000.
Dimensions: diameter: 24 mm; max. thickness: 8 mm; diameter of perforation: 9 mm.
Material: porphyry.
A round porphyry spindle-whorl, with a central 9 mm perforation. The domical upper face has incised decoration, two concentric rings framing the axial perforation, from which six sets of paired lines sweep out to the outer rim at a *c.* 45° angle, in the manner of a Catherine-wheel. On the flat lower face, three concentric circles are incised, one close to the central perforation, the next 2 mm further out and the third close to the outer edge. The surfaces have been smoothly polished but are a little abraded, and in one place flaked.
Date: uncertain; probably 5th to 7th century.

6). *Spindle-whorl* (Fig. 8.7-3 and Plate 8.4)
Context: 1114. Triconch area to west of west wing. Phase 15: unstratified topsoil.
SF 945.
Dimensions: diameter: 27 mm; max. thickness: 18 mm; diameter of perforation: 9 mm.
Material: porphyry.
A round porphyry spindle-whorl, with a central round 9 mm perforation. Breaks on top and bottom and on some of the contours. Preserved surfaces smoothly worked and polished.
Date: uncertain; probably 5th to 7th century.

LOOM-WEIGHTS

7). *Loom-weight* (Fig. 8.7-4)
Context: 3020. Merchant's House Room 39 (courtyard). Phases 11–13a: shell-midden over Merchant's House courtyard, 7th to 12th century.
SF 2297.
Dimensions: diameter: 46 × 36 mm; max. thickness: 22 mm.

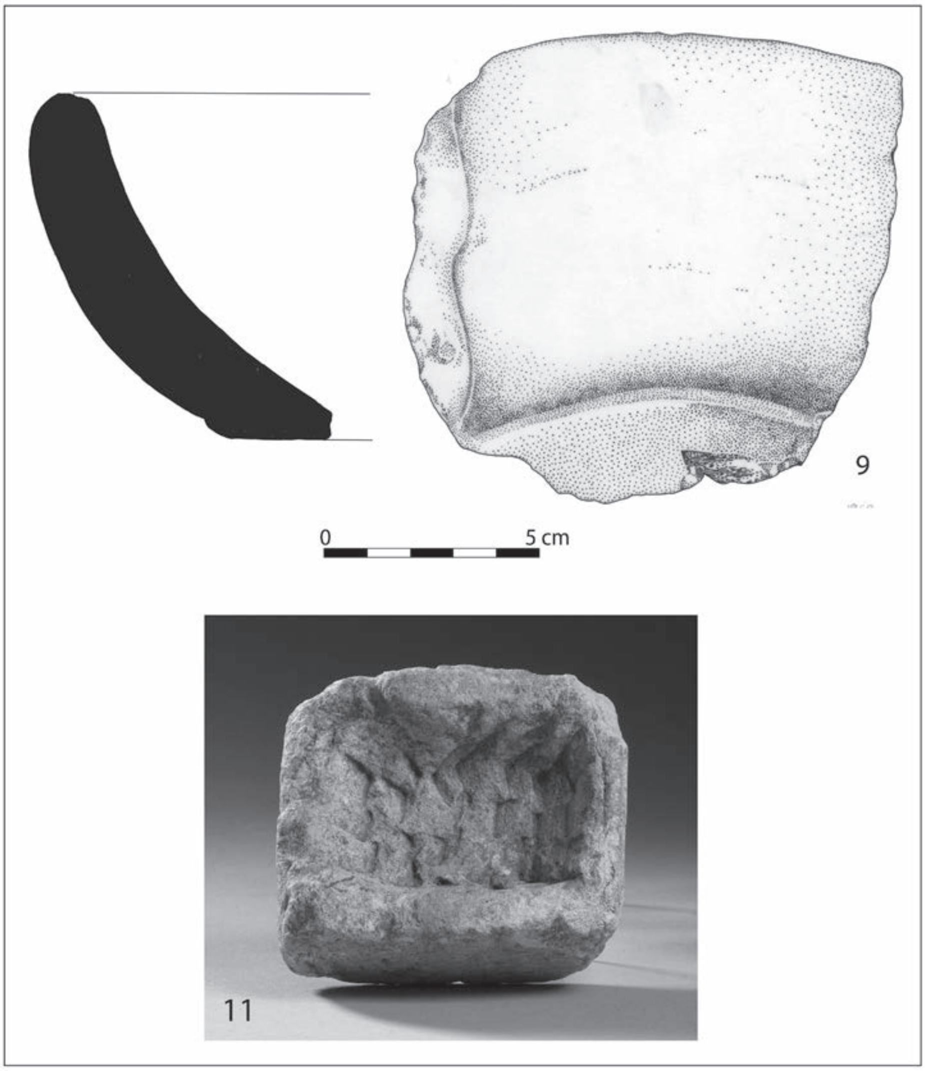


Figure 8.7-5. Fragment of basin (Stone cat. no. 9) and small box or trough (Stone cat. no. 11)

Material: limestone.
A sub-round stone artefact, somewhat irregularly shaped, with an off-centre 10 × 7/15 mm perforation and rounded contours. The lower surface is soot-darkened. Probably a loom-weight.
Date: 7th to 12th century; or earlier.

WEIGHTS
8). *Fragment of large weight* (Fig. 8.7-4 and Plate 8.5)
Context: 1114. Triconch: unstratified topsoil.
SF 1035.
Dimensions: diameter: 0.11 m; preserved height: 27 mm; diameter of central perforation: 34 mm.
Material: hard local light greenish limestone.
Half of a large annular weight. The ring is broken across the centre and the lower half has been broken away. Somewhat roughly fashioned and finished. The function of this weight is uncertain; possibly a net-weight used in fishing, possibly a large loom-weight.
Date: uncertain.

BASINS AND BOXES
9). *Fragment of round basin* (Fig. 8.7-5)
Context: 3146. Triconch Room 16 (courtyard, east portico). Phase 4?: silt deposit in drain adjacent to east portico, early 5th century?
SF 1968.
Dimensions: 0.105 × 0.11 m × 14–21 mm.
Material: medium-crystalled white marble.
Fragment of a round marble basin, consisting of part of the base, body and rim of the vessel. There are traces of a vertical raised feature on the outer face. Both interior and exterior faces are smoothly finished and polished.
Date: early 5th century or earlier.

10). *Fragment of large marble basin*
Context: 1964. Triconch Room 22 (south wing). Phase 5: clay bedding for stone pavement, early 5th century.
SF 2470.
Dimensions: height: 57 mm; length: 0.134 m; depth: 67 mm; thickness of base: 10 mm.

Material: medium/fine-crystalled white marble.
Fragment of an expertly carved and smoothly polished marble basin or tray, with a flat bottom and substantial curling half-crescent-sectioned lip.
Date: Roman imperial.

11). *Small box or trough* (Fig. 8.7-5)
Context: 5547. Triconch Room 16 (courtyard). Pre-Phase 12: sand-silt layer, largely unexcavated, pre-10th century.
SF 3307.
Dimensions: 70 mm × 60 mm; height/depth: 32 mm; depth of interior *c*. 18 mm.
Material: white limestone.
A small rectangular monolithic limestone box, quite smoothly worked on the outer surfaces; the interior rather more roughly chiselled out.
Date: uncertain; pre-10th century.

QUERN-STONES AND WHETSTONES
12). *Circular quern-stone*
Context: 3361. Triconch Room 26 (west wing). Phase 5: deposit associated with kiln, early to mid-5th century (AD 420–50).
SF 2169.
Material: grit-stone.
Dimensions: diameter: 0.395 m; thickness 24 mm; central pivot-hole: 35 × 30 mm.
The lower quern from a quern-stone mill. A circular disk of grit-stone with central hole, lined with lead, for turning post. The lower face is flat while the upper surface rises to a low conical peak in the centre. The stone is almost complete, missing a segment on one side.
Date: early to mid-5th century.

13). *Four fragments of quern-stone*
Context: 1422. Triconch Room 26 (west wing). Phase 7: tile rubble, early 6th century.
SF: none.
a). Dimensions: 0.34 × 0.18 m.; thickness: 50 mm. Original diameter *c*. 0.50 m.
Material: whitish conglomerate.
A section of the curving outer edge of a quern-stone.
b). Dimensions: 0.200 × 0.145 m; thickness: 50–54 mm. Original diameter *c*. 0.4 m
Material: ocherish grit-stone.
A fragmentary sector of a quern-stone. The curving outer edge is preserved.
c). Dimensions: 90 mm × 0.1 m; thickness: 48–50 mm.
Material: oatmeal conglomerate with whitish inclusions.
A fragmentary sector of a quern-stone. The curving outer edge is preserved, bevelled on the outside.
d). Dimensions: 0.172 × 0.125 m; thickness: 45–53 mm.
Material: oatmeal conglomerate.
Fragment of a quern-stone; a short length of the curving outer edge is preserved, bevelled on the outside.
e). Dimensions: 0.165 m × 85 mm; thickness: 50–52 mm.
Material: oatmeal conglomerate.
Fragment of a quern-stone. No original edge preserved.
Date: early 6th century or earlier.

14). *Fragment of quern-stone*
Context: 5014. Triconch Room 23. Phase 7: tile dump or roof collapse, early 6th century.
SF none.
Material: grey volcanic lava.
Dimensions: 0.135 × 0.140 m; thickness: 70–40 mm; original diameter of stone: *c*. 0.3 m.
Fragmentary sector of the top handstone from a quern-stone mill. The stone diminishes in thickness from a high rounded outer lip on the circumference to the pivot-hole at the centre.
Date: early 6th century or earlier.

15). *Fragment of quern-stone*.
Context: 5337. Triconch Room 27. Phase 7: deposits above circular structure, early 6th century.
SF: none.
Material:
Dimensions: 0.210 × 0.162 m; thickness: 60–50 mm.
Sub-triangular fragment of a circular quern-stone. The stone diminishes in thickness from the circumference to the centre.
Date: early 6th century or earlier.

16). *Fragment of quern-stone*
Context: 1133. Triconch Room 14 (north wing). Phase 8: midden deposit, early to mid-6th century (*c*. AD 525–50).
SF: none.
Material: dark grey volcanic grit stone
Dimensions: 0.14 × 0.14 m; thickness: 43 mm.
Fragment of a quern-stone. A section of the outer contour is preserved, the inner/upper surface is incised with close-set chevron incisions; roughly levelled on the outer/lower surface.
Date: early to mid-6th century or earlier.

17). *Fragment of quern-stone*
Context: 1523. Triconch Room 31 (west wing). Phase 8: deposit or possible surface, mid-6th century.
SF: none.
Dimensions: 0.215 × 0.160 m; thickness: 60–63mm. Original diameter: *c*. 0.40m.
Material: coarse light oatmeal grit-stone with white inclusions.
Fragmentary sector of the top handstone of a quern-stone mill. A radial socket for a turning spike, partially preserved, 0.1m deep, is present in the lower surface. Towards the centre a section of a conical depression about the central pivot-hole is preserved.
Date: mid-6th century or earlier.

18). *Fragment of quern-stone*
Context: 3104. Merchant’s House Room 39 (courtyard). Phase 8: rubble deposit, early to mid-6th century.
SF: none.

Material: grey volcanic conglomerate with plentiful large stony inclusions.
Dimensions: 0.340 × 0.195 m; thickness: 0.115 m.
Fragment of a large round quern-stone; part of the curving outer contour is preserved.
Date: mid-6th century or earlier.

19). *Fragment of quern-stone*
Context: 1516. Triconch Room 31 (west wing). Phases 8–9: make-up layer, 6th century.
SF: none.
Dimensions: 0.232 m × 19 mm; thickness: 34–36 mm; original diameter: *c*. 0.40m.
Material: oatmeal grit-stone, medium coarse.
Fragmentary sector of a quern-stone with parts of the curving circumference and a section of the lip of the central pivot-hole preserved.
Date: 6th century or earlier.

20). *Fragment of quern-stone*
Context: 1676. Triconch Room 18 (long gallery). Phase 9: layer sealing industrial activity, mid- to late 6th century.
SF: none.
Dimensions: 0.240 × 0.160 m; thickness: 58–52mm; original diameter *c*. 0.40 m.
Material: pale coarse grit-stone with white inclusions.
Fragmentary sector of a quern-stone with a section of curving edge slightly bevelled on the exterior face and part of the rim of the central pivot-hole preserved.
Date: 6th century.

21). *Fragment of quern-stone*
Context: 4000. Merchant's House Room 40. Phase 10: building collapse/demolition, late 6th to early 7th century (with residual 5th-century pottery).
SF 2397.
Material: grey spongy volcanic lava grit-stone with many air-holes.
Dimensions: 0.167 × 0.135 m; thickness: 9–15 mm.
Fragmentary sector of the top handstone of a circular quern-stone mill. The stone diminishes dramatically in thickness from the circumference to the centre. There is a pronounced rounded torus lip running round the circumference on the upper surface of the stone.
Date: late 6th to early 7th century or earlier.

22). *Fragment of quern-stone*.
Context: 4001. Merchant's House Room 43. Phase 10: dumping, late 6th to early 7th century.
SF 2460.
Material: dense grey-black grit-stone.
Dimensions: 0.150 × 0.145 m; thickness: 55–45 mm.
Fragmentary sector of the top handstone from a quern-stone mill. The stone diminishes in thickness from the circumference to the lip of the central pivot-hole. Radial grooves are cut into the lower surface.
Date: late 6th to early 7th century or earlier.

23). *Fragment of a large quern-stone*
Context: 5331. Triconch Room 29 (west wing). Phase 10: make-up for mortar surface, late 6th to early 7th century.
SF: none.
Dimensions: 0.215 m × 12 mm; thickness: 49–53 mm.
Material: light oatmeal grit-stone with white inclusions.
Fragment of a large quern-stone. A section of the curving outer edge is preserved.
Date: 6th century or earlier.

24). *Whetstone?*
Context: 5322. Triconch Room 16 (courtyard). Phases 12–13: levelling deposit, early 10th to late 12th century.
SF 3092.
Dimensions: 0.126 m × 30 mm; thickness: 15 mm.
Material: stone.
A long narrow flat-surfaced stone artefact, irregularly rounded at both ends; possibly worked, possibly natural. Possibly a whetstone.
Date: uncertain; probably 5th to 6th century.

25). Two joining *fragments of a quern-stone*
Context: 1482. Triconch Room 31 (west wing). Unstratified.
SF 1040.
Dimensions: (together): 0.33 × 0.16 m; thickness: 58–50 mm; original diameter *c*. 0.36 m.
Material: coarse light-coloured grit-stone with white inclusions.
Two joining fragments of a round quern-stone.
Date: uncertain; probably 6th century.

MISCELLANEOUS ARTEFACTS

26). *Stone artefact*
Context: 1287. Triconch Room 25 (western entrance vestibule). Phase 5+: fill of robber trench, mid-5th century or later.
SF 1048.
Dimensions: diameter: 70–72 mm.
Material: white, chalky limestone.
A fragmentary sphere of white limestone; just under half has been broken off and is missing.
Date: 5th century or earlier.

27). *Stone artefact, possibly a stopper* (Fig. 8.7-6)
Context: 5364. Triconch Room 29 (west wing). Phase 6: rubble levelling layer, mid- to late 5th century.
SF 3111.
Dimensions: height: 83 mm; head/base: 73 × 58 mm; diameter of projecting stem: 45–39 mm.
Material: soft light-yellowish sandstone.
A carefully shaped artefact with a battered sub-round head/base and a projecting, tapering shaft rounded at the end. Possibly a stopper for a vessel.
Date: mid- to late 5th century or earlier.

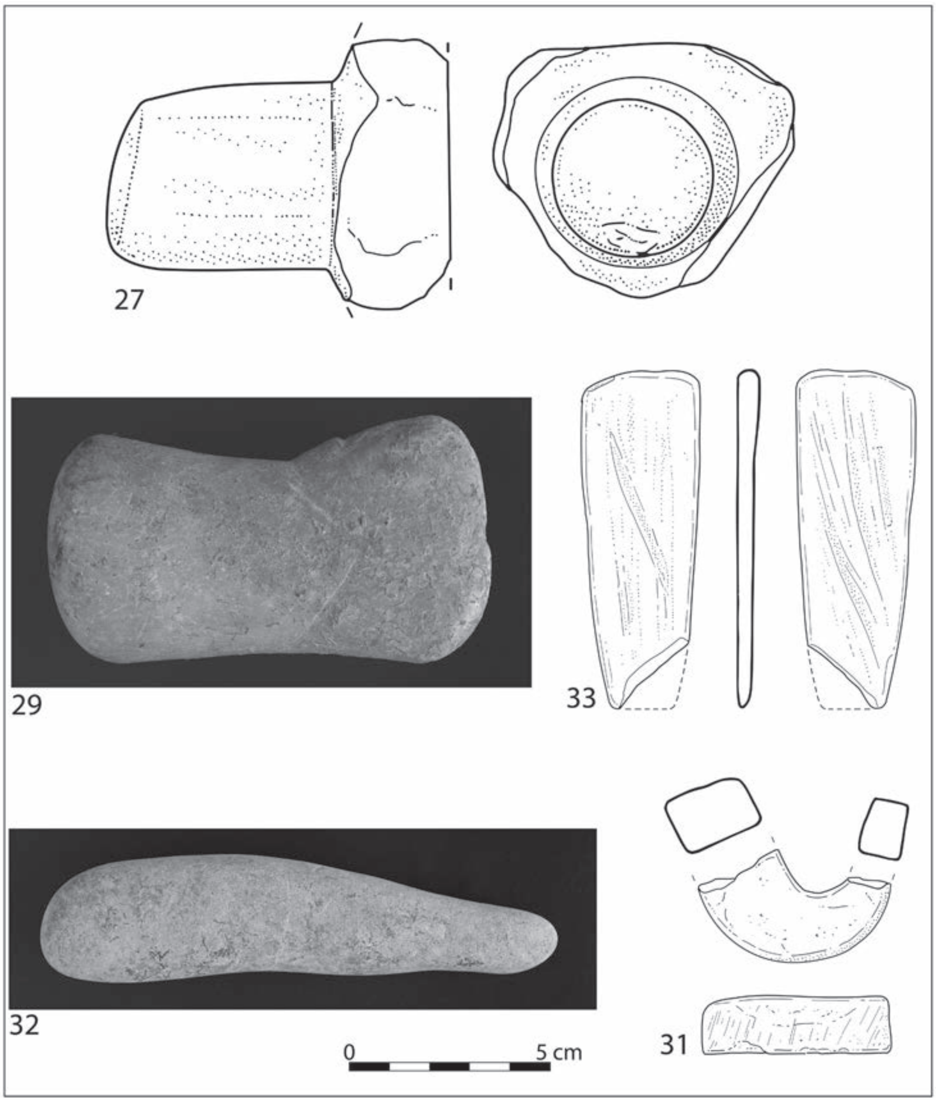


Figure 8.7-6. Stone artefacts (Stone cat. nos 27, 29, 31, 32 and 33)

28). *Shaped stone artefact*?
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF 1105.
Dimensions: 34 × 22 × 32 mm; base: 21 × 10 mm.
Material: stone.
A globular formation, waisted; broken off at the waist. This is possibly a shaped stone, possibly a natural formation.
Date: early 6th century or earlier.

29). *Stone artefact – pestle or hammer-stone?* (Fig. 8.7-6)
Context: 1577. Triconch Room 24 (reception room). Phase 8?: pit fill, mid-6th century (*c.* AD 525–50).
SF 862.
Dimensions: 90 × 50 × 45 mm.
Material: stone.
A stone artefact, apparently a hammer/axe-shaped tool, with a flat round hammer surface at one end and a lunate 'blade-like' edge at the other. Possibly a pestle or a hammer-stone. Incised with a chevron on both sides.
Date: mid-6th century or earlier.

30). *Fragment of crucible*
Context: 4051. Merchant's House Room 39 (courtyard). Phase 8: silt accumulation, early to mid-6th century.
SF 2590.
Dimensions: overall: 26 × 20 × 10 mm.
Material: stone.
Fragment of a small stone vessel; 4 mm dark red glaze (?) on outside; copper deposit on inside with negative/hole left by a rectangular-sectioned rod. Apparently a crucible for refining copper.
Date: mid-6th century or earlier.

31). *Stone artefact* (Fig. 8.7-6)
Context: 5268. Triconch Room 21 (south range). Phase 9: tile rubble, mid to late 6th century.
SF 2811.

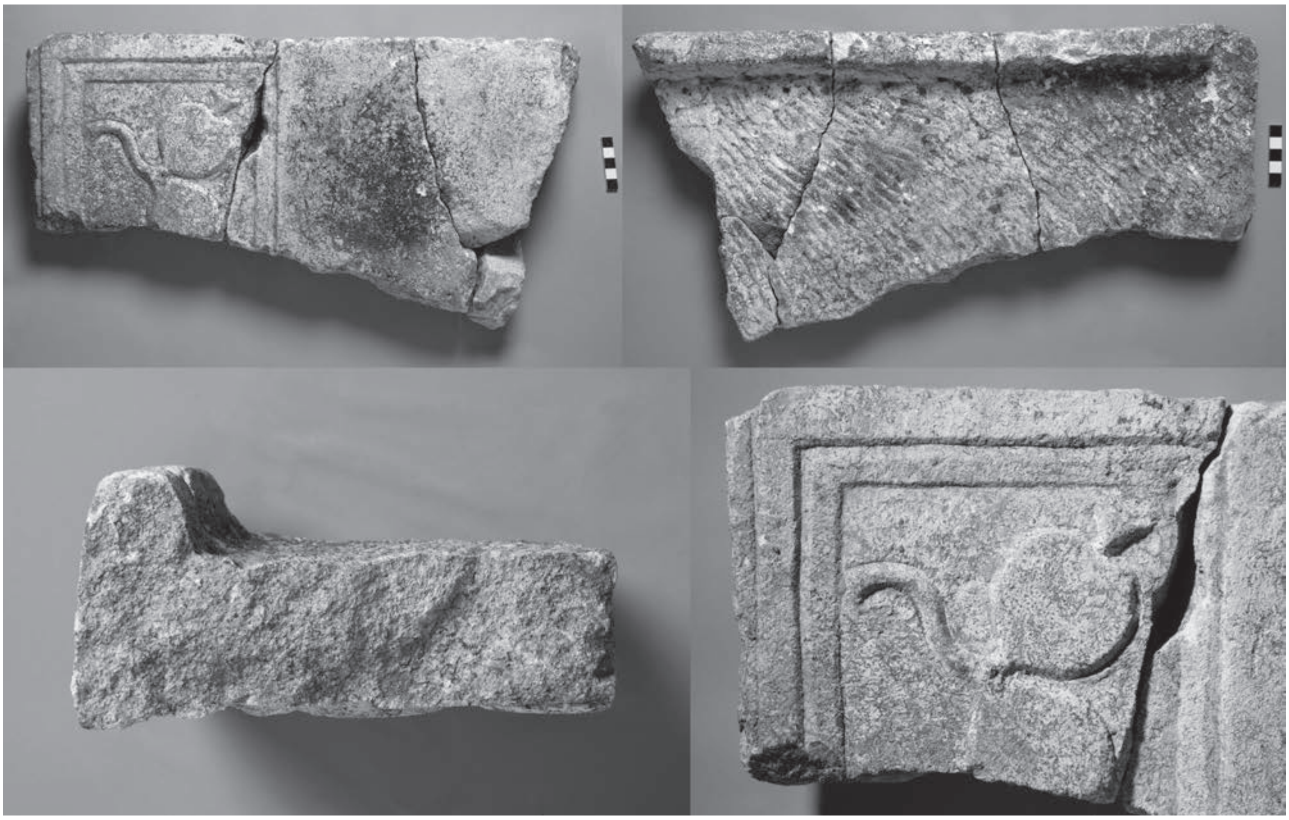


Figure 8.7-7. Fragment of the display-front of a piece of furniture, possibly a stibadium (Stone cat. no. 34)

Dimensions: 46 × 24 × 14 mm.
Material: white crystalline limestone.
A worked white limestone object curved and rounded on the outside face, the remains of a rounded perforation on the interior; two flat surfaces and a slightly bevelled edge. The original form and function of the object are obscure.
Date: 6th century or earlier.

32). *Shaped stone artefact* (Fig. 8.7-6)
Context: 1699. Triconch Room 16 (courtyard). Phases 12–13: mixed demolition and build-up, 10th to 12th century with intrusive material.
SF 988.
Dimensions: 0.101 m × *c*. 27–15 × *c*. 23–15 mm.
Material: stone.
A gherkin-shaped stone, an irregular tapering cylinder, rounded at both ends; possibly a pestle.
Date: 10th to 12th century or earlier.

33). *Palette?* (Fig. 8.7-6)
Context: 5038. Triconch Room 19 (south wing). Phase 14+: humic layer with rubble, 13th to 14th centuries or later.
SF 2384.
Dimensions: 84 × 29–22 mm; thickness: 3–5 mm.
Material: naturally flaking stone.
A carefully shaped artefact with one gently curved preserved end and gently bowed sides, tapering to a broken narrower end. Possibly a palette.
Date: uncertain.

Architectural

FURNITURE

34). *Fragment of the display-front of a piece of furniture, possibly a stibadium* (Fig. 8.7-7)
Context: 10005. Triconch Room 16 (courtyard, west portico). Phase 4: *statumen* of west portico mosaic pavement, early 5th century (*c.* AD 400).
SF 10,000.
Dimensions: height: 0.24 m; width: 0.50 m; thickness: 55 mm (including rear lip: 83 mm).
Material: white crystalline limestone.
A fragmentary rectangular slab in four joining pieces, with a projecting lip on the rear face running along the preserved longer horizontal edge, seemingly to support a horizontal surface – some kind of table-surface. Parts of the upper and left-hand edges, together with the left-hand upper corner, are preserved. A rectangular framed field in sunken relief fills one end of the display face of the front panel. This contains a motif carved in low relief – two large fruits, pomegranates or figs, growing from a short undulating stem. The centre section of this face is plain and the lost end undoubtedly carried a second carved panel balancing the first.

The front face is smoothly finished but not polished, while the rear face has been roughly levelled with a claw-chisel. Both surviving edges are vertical and are quite smoothly finished, the edge of the long side rather more carefully worked than the vertical lateral edge. The lip along the preserved long edge of the rear face projects

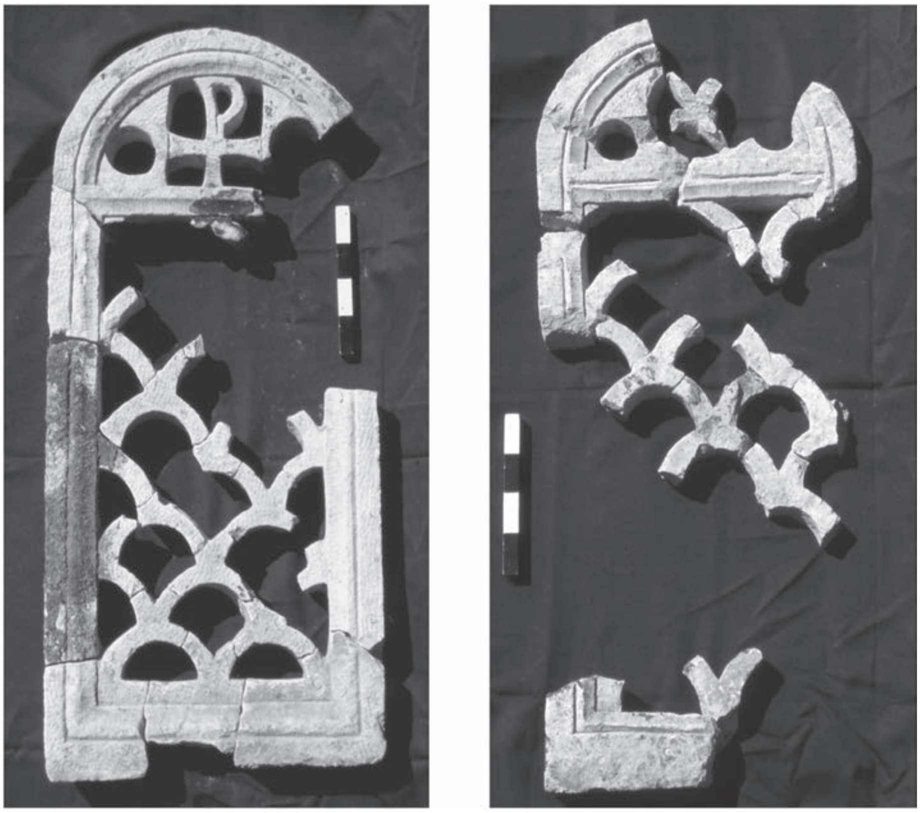


Figure 8.7-8. Window-grills, each featuring a chi-rho *monogram (Stone cat. nos 37a and 37c)*

17 mm, and there is a rectangular set-back running down the left-hand rear corner of the slab, to make a joint with a panel which must have formed the left-hand side of the piece of furniture which the relief adorned.

This could have formed part of the display front of a sigma-shaped dining platform, a *stibadium*, the usual form of couch for elite dining rooms in late antiquity. A large sigma-shaped masonry feature preserved in the central conch of the Triconch dining hall of the *domus* at Butrint may be the matrix of a couch of this kind (Bowden *et al.* 2011c, 42, 47, fig. 2.63). It is clear both from excavated *stibadia* and from representations in manuscripts of the period – the Last Supper in the Rossano Gospels (Grabar 1966, fig. 230, Rossano, Museo Diocesano, fol. 3r.), and Salome with the head of John the Baptist at Herod's banquet in the purple Gospels from Sinope (Grabar 1948; Grabar 1966, fig. 227, Paris, Bibl. Nat. cod. gr. 1286, fol. 10v.), both 6th-century books – that their fronts could be elaborately decorated with figural and abstract designs. The relief from Butrint could be from a semi-circular masonry dining couch of similar type but less ornate than one found during excavations in the late Roman villa at Faragola (Ascoli Satriano, prov. Foggia) in Puglia (Volpe *et al.* 2005, 274–83; 2006). Other material from the same context, in the west portico of the peristyle, included fragments of fine vessel glass, some painted plaster, a fragment of African red-slip ware (possibly form 67) with impressed 'fern' decoration of mid-4th- to early 5th-century date and a fragment of 4th- to 5th-century cooking vessel in local ware (pers. comm., Paul Reynolds.).
Date: 4th century.

35). *Fragment of furniture – possibly from a table-top*
Context: 4136. Merchant's House Room 37. Phase 6: deposit associated with *dolia* next to wall of room, late 5th century (AD 450–500).
SF: none.
Dimensions: 0.255 × 0.163 m; thickness: 29–40 mm.
Material: medium/medium-large-crystalled white marble with grey areas, possibly Proconnesian.
Slab with one original edge, three edges roughly recut and one edge broken. Smoothly worked on both the upper and lower faces. The original edge is cut on a concave slant, angled down, and ornamented with a somewhat irregularly formed sequence of half ovolos. This may be from a table-top.
Date: 4th to 5th century.
Bibliography: Bowden *et al.* 2011e, 169–71.

36). *Fragment of a table-top?*
Context: 4136. Merchant's House Room 37. Phase 6: deposit associated with *dolia* next to wall of room, late 5th century (AD 450–500).
SF: none.
Dimensions: 0.353 × 0.237 m; thickness: 31–35 mm.
Material: fine-crystalled white marble.

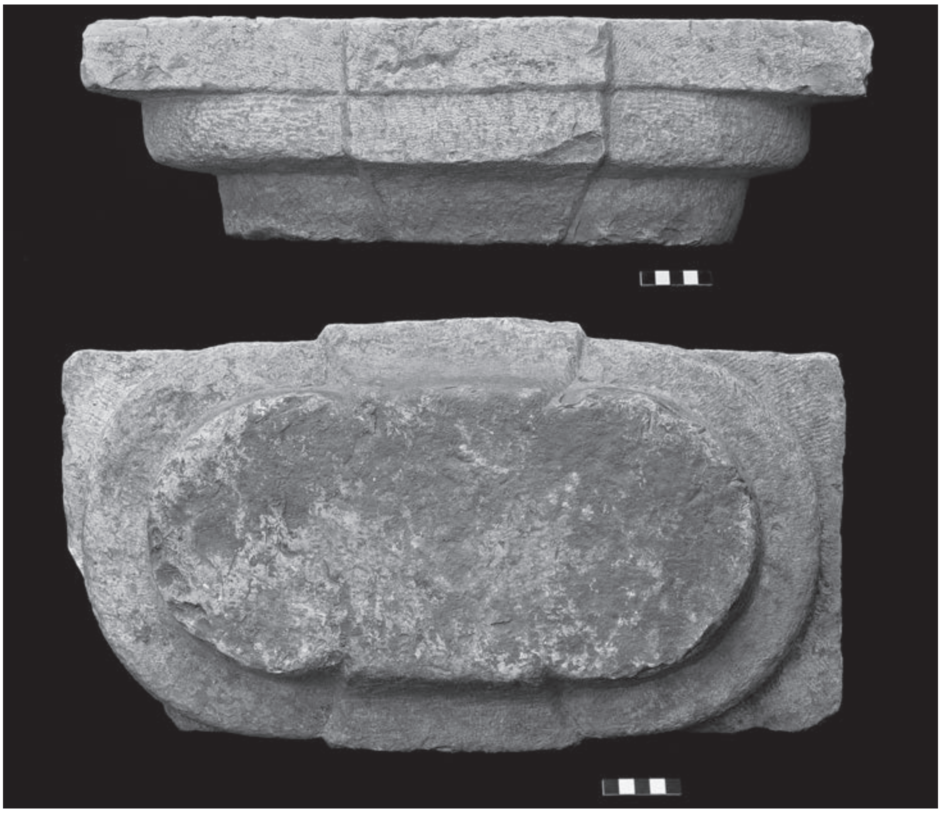


Figure 8.7-9. Capital block for twin colonnettes from a window or an arcade (Stone cat. no 38)

Fragment of marble sheet with one edge preserved, a large-diameter curving profile, originally continuing in either a full or a half circle. Smoothly finished and polished on both surfaces. The curving outer edge is roughly bevelled back from one surface to the other, probably for setting. Probably a table-top or horizontal surface of some kind.
Date: 4th to 5th century.
Bibliography: Bowden *et al.* 2011e, 169–71.

WINDOW-GRILLS

37). *Fragments of four window-grills* (Fig. 8.7-8)
Context: 3037. Triconch Room 16 (courtyard – drain next to east portico). Phase 8: drain fill, early to mid-6th century. SF 1975 and 1976.
Dimensions: original height: *c*. 0. 96 m; width: *c*. 0.43 m; max. thickness: *c*. 70 mm.
Material: fine-grained white crystalline limestone. The stone used for a) and b) is of a higher quality and harder than that of c) and d).
a). (SF 1975) 15 joining fragments, making a tall round-headed grill. The lower part is filled with a pierced imbrication of overlapping semi-circular tiles/scales, set within a rectangular frame, profiled with an outer fascia 32–48 mm wide at the bottom and 25–30 mm at the sides, followed by a groove and an inner *cyma reversa*. The *cyma* is well formed and 35 mm wide. The lunette at the head of the grill is also worked à jour with a vertical cruciform *chi-rho* monogram, flanked by circular perforations. The terminals of the arms of the resulting cross are splayed.
b). 8 fragments of a similar grill with the same design.
c). (SF 1976) 16 fragments from a similar grill, in which the design in the lunette consisted of a six-pointed star, also cut à jour, and flanked by circular perforations. Unlike a) and b), the framing of the lower grill continues uninterrupted round the lunette. The outer fascia is wider than on the *chi-rho* grill a), 55–65 mm at the bottom and 33 mm on the sides, and the inner *cyma* moulding is narrower (23 mm) and less carefully cut than on the *chi-rho* grill a).
d). 1 fragment from a grill, uniform with c), with a star in the lunette. The one surviving fragment is from the star.

The front faces are quite smoothly worked. The outer fascias of the frames are stippled, possibly to key into a covering skim of plaster. The rear faces are somewhat more roughly finished.
Simple rectangular stone window grills with similar pierced imbrications of overlapping tiles/scales have been found at the Basilica Urbana at Salona (Duval *et al*, 1994, 61–2, pl. III, d, 1–3).
Date: first quarter of 5th century.
Bibiliography: Mitchell 2007, 287–9, fig. 9; Bowden *et al.* 2011c, 41, figs 2.54–55.

CAPITALS

38). *Capital block for twin colonnettes from window or arcade* (Fig. 8.7-9)
Context: 1930. Triconch Room 22 (south wing). Phase 3: reused in capping of drain running north-south through Room 22 from the peristyle, *c*. AD 400.

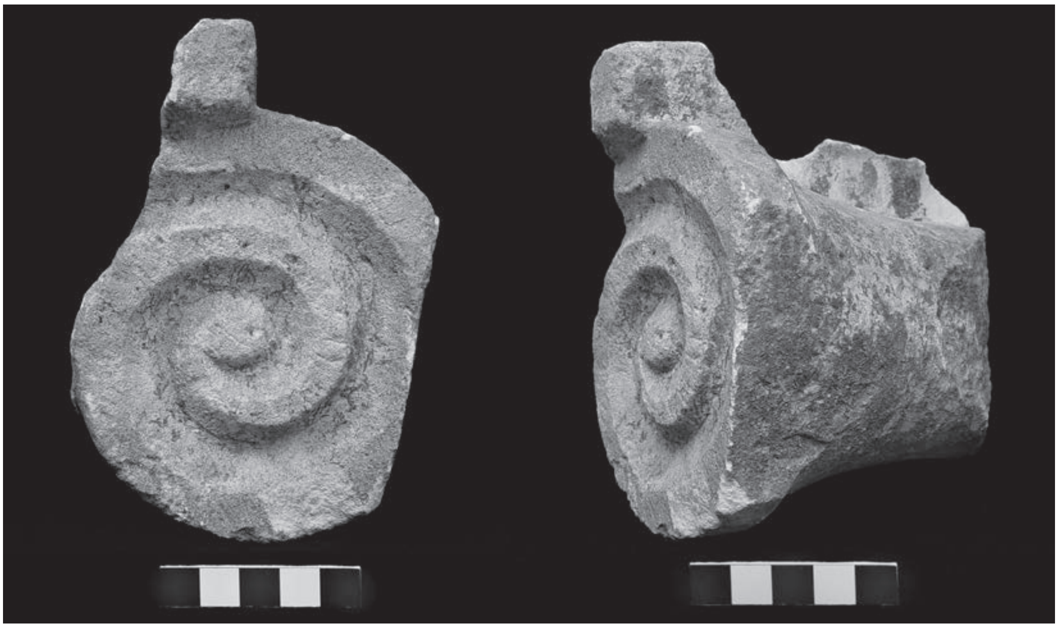


Figure 8.7-10. Spiral volute from an Ionic capital (Stone cat. no. 39)

SF: none.
Dimensions: Height: 0.160 m; length: 0.580 m; width: 0.277 m.
Material: greyish limestone
Capital block with rectangular abacus, supported by two oval pulvins, the upper larger than the lower. At the centre of each long side these are broken by a slightly projecting section of the profile. This was designed to crown an elongated pier with two engaged lateral colonettes separated on the two long faces by a pilaster-strip. In design and dimensions this capital is uniform with cat. nos 48 and 49; it is also uniform with a slender columnar pier of corresponding design, but slightly larger in scale, from the area of the Triconch *domus* (cat. 52). These must all derive from the same structure.
Date: pre-AD 400.

39). *Spiral volute from an Ionic capital* (Fig. 8.7-10)
Context: 5337. Triconch Room 27: Phase 7: deposits above circular structure, early 6th century.
SF: none.
Material: fine-grained white limestone.
Dimensions: height: 0.14 m; width: 0.10 m; max depth: 0.125 m.
Spiral volute and half the roll from an Ionic capital. Surfaces smoothly worked with the marks of the chisel visible to the eye.
Date: probably late Roman.

40). *Three fragments of Corinthian capitals* (Fig. 8.7-11 and see Fig. 8.7-14)
Context: 2077. Triconch Room 16 (courtyard, east portico). Phase 9: rubble/demolition deposit, mid- to late 6th century.
SF: none.

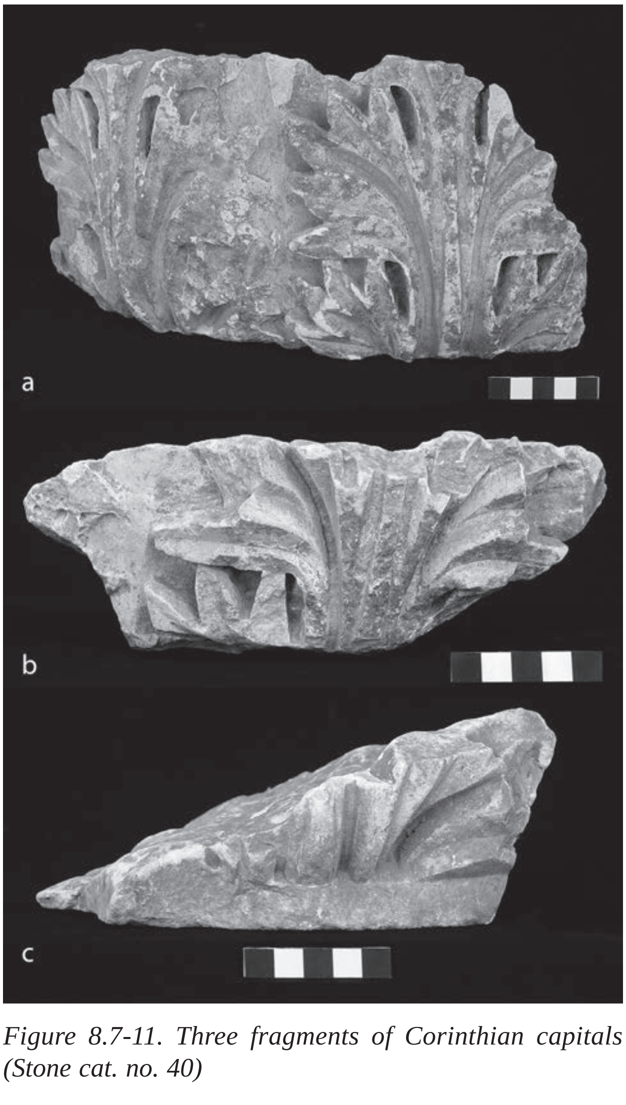


Figure 8.7-11. Three fragments of Corinthian capitals (Stone cat. no. 40)

a). Dimensions: height: 0.150 m, width: 0.325 m; original diameter of base: *c*. 0.450 m.
Material: medium-fine crystalled greyish-white marble.
This is a fragment from the lowest zone of leaves from a large Corinthian capital, joining with cat. 45.
Date: late 3rd to early 4th century?
b). Dimensions: height: 0.115 m; width: 0.230–0.190 m.
Fragment from a large Corinthian capital. Lower surface smoothed with irregular undulating incisions from chisel.
c). Dimensions: height: 80 mm; width: 0.165–0.170 m section at top of capital.
Fragment from a large Corinthian capital. Bottom surface smoothed with fine-toothed chisel.
b) and c) have a 17 mm scotia/plinth at base, whilst on a) the leaves descend right to the base. The leaves of a) are cut a little differently from those of b) and c), while the number of leaf points also differs between a) and b). The fragments must be from two different capitals.
Date: late 3rd to early 4th century?

41). *Fragment of Corinthian capital*
Context: 5402. Triconch Room 19 (south wing). Phase 10: demolition layer, late 6th to early 7th century.
SF: none.
Material: medium-fine-crystalled white marble.
Dimensions: 80 × 75 × 55 mm.
Upper part of a leaf from the bottom of the corner volute of a Corinthian capital.
Date: Roman imperial.

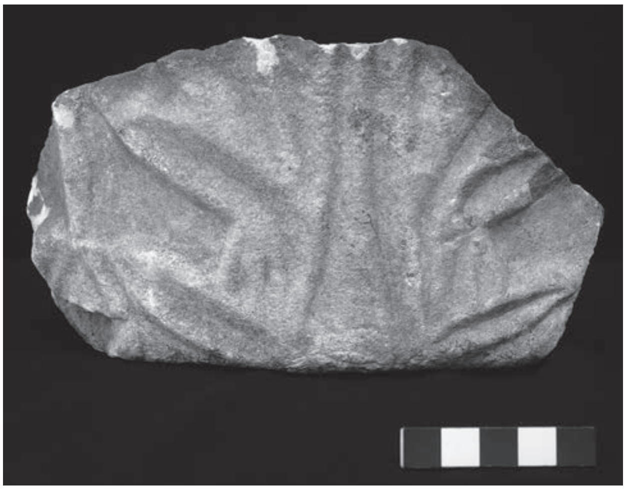


Figure 8.7 -12. Fragment of a Corinthian capital (Stone cat. no. 42)

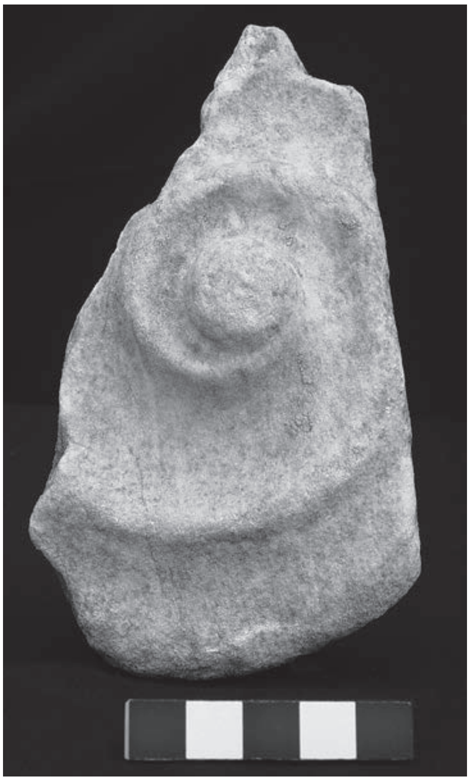


Figure 8.7-13. Fragment of an ionic capital (Stone cat. no. 43)

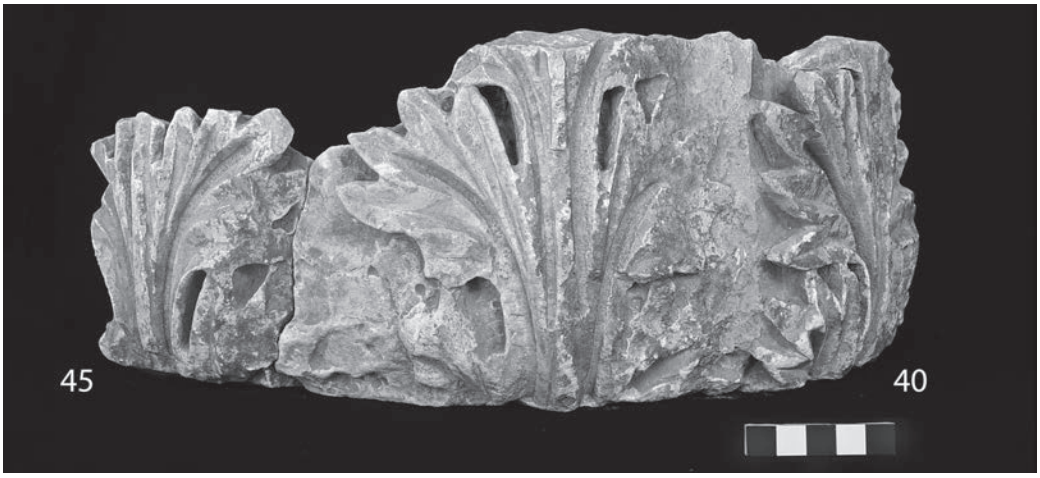


Figure 8.7-14. Two fragments of a Corinthian capital (Stone cat. nos 40 and 45)

42). *Fragment of Corinthian capital* (Fig. 8.7-12)
Context: 5322. Triconch Room 16 (courtyard). Phases 12–13: levelling deposit, early 10th to late 12th century.
SF 3093.
Dimensions: height: 0.11 m; width: 20 mm. Original radius of base of capital: *c.* 0.155–0.160 m.
Material: medium-large-crystalled white marble.
Fragment from the lower part of a Corinthian capital with part of the lower rank of leaves preserved. On the lower face one third of an attachment socket, 40 mm deep and 50 mm wide, is preserved. This bottom face is roughly levelled.
Date: the abstracting definition of the leaves suggest a date in the late 4th century.

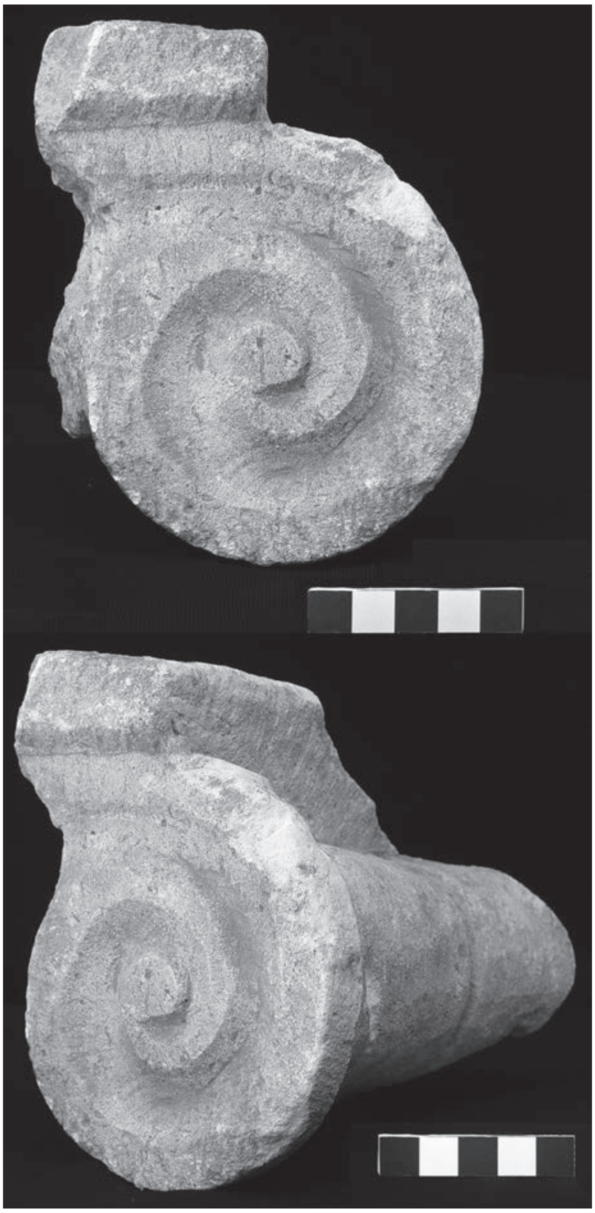


Figure 8.7-15. Fragment of an Ionic capital (Stone cat. no. 47)

43). *Fragment of an Ionic capital* (Fig. 8.7-13)
Context: 5538. Triconch Room 16 (courtyard). Phases 12–13: dumping/rubbish build-up in courtyard, 10th to 12th century.
SF: none.
Dimensions: height: 86 mm; width: 0.152 m; depth: 62 mm.
Material: medium-fine-crystalled white marble.
Fragment of an Ionic capital with part of a volute (from a larger capital than the fragmentary Ionic capitals cat. 39 and cat. 47).
Date: probably late Roman.

44). *Fragment of Corinthian capital*
Context: 5002. Triconch Room 19 (south wing). Phase 13: rubble of circular structure, late 11th to late 12th century.
SF 2562.
Dimensions: height: 0.117 m; length: 0.240 m; max depth: 75 mm.
Material: medium-fine-crystalled white marble.
Fragment from the bottom of a Corinthian capital from an engaged pilaster or frieze.
Date: the deep cutting and form of the leaves suggest a date in the 4th century.

45). *Fragment of Corinthian capital* (Fig. 8.7-14)
Context: 2050. Triconch Room 16 (courtyard, adjacent to east portico). Phase 15: topsoil, 15th century and later.
SF 1153.
Material: medium-fine-crystalled greyish-white marble.
Dimensions: height: 0.117 m; width: 90 mm.
Also, a small fragment, apparently from the same capital with traces of carved leaves.
Dimensions: 65 × 60 × 67 mm.
These are fragments from the lowest zone of leaves from a large Corinthian capital, joining with cat. 40a.
Date: late 3rd to early 4th century?

46). *Fragment of Corinthian capital*
Context: 5265. Triconch Room 16 (courtyard). Phase 15: topsoil, unstratified.
SF: none.
Dimensions: height: 0.105 m; width: 0.190 m; depth: 0.215 m.
Material: medium-fine-crystalled white marble.
Fragment of a Corinthian capital with the base of an acanthus leaf.
Date: Roman imperial.

47). *Fragment of Ionic capital* (Fig. 8.7-15)
Context: 1114. Triconch: unstratified topsoil.
SF: none.
Dimensions: height: 0.140 m; width: 0.117 m; depth: 0.182 m; diameter of volute: *c.* 0.114 m.
Material: fine-crystalled white marble.
Fragment of an Ionic capital with one volute, much of the roll and a corner of the abacus preserved. A different capital from cat. 39.
Date: probably late Roman.

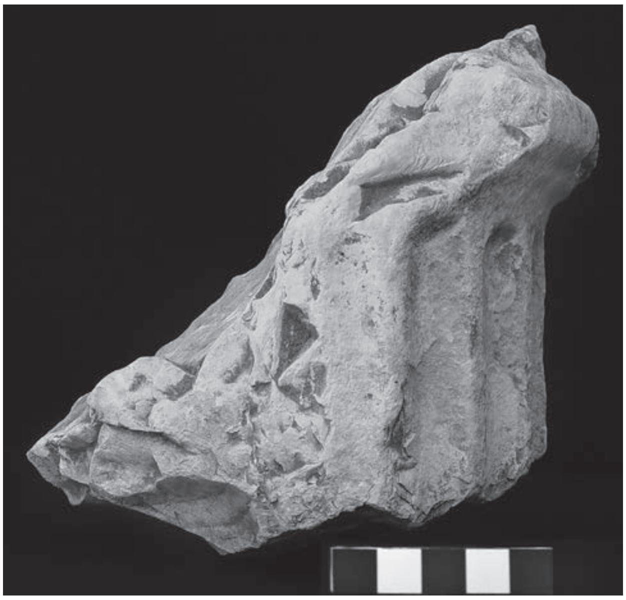


Figure 8.7-16. Fragment of a fluted column (Stone cat. no. 50)

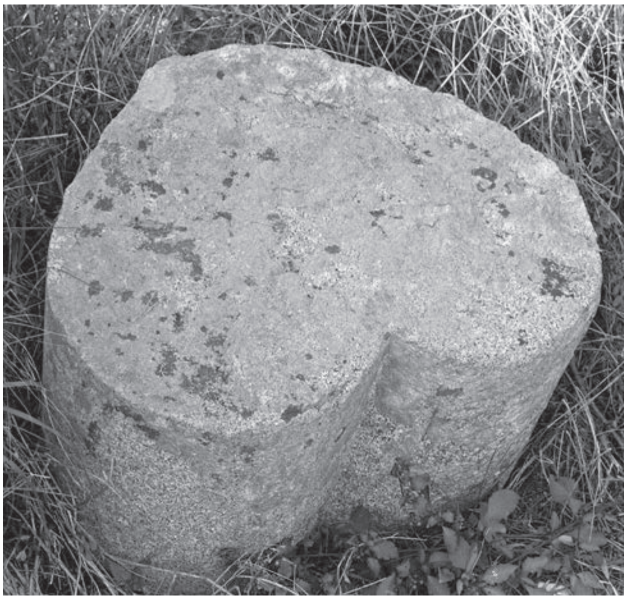


Figure 8.7-17. One of the two heart-shaped columnar corner piers (Stone cat. no. 51)

48). *Capital block for twin colonnettes from window or arcade*
Context: Triconch area, unstratified.
SF: none.
Dimensions: height: 0.182 m; preserved lower length: 0.565 m (original lower length: *c.* 0.575 m); upper length: 0.390 m; lower width: 0.298 m; upper width: 0.165 m.
Material: greyish limestone.
A capital block uniform with cat. nos 38 and 49. A socket, 25 × 25–30 mm, 25 mm deep, in the upper surface.
Date: pre-AD 400.

49). *Capital block for twin colonnettes from window or arcade*
Context: Presumably from the Triconch. Now preserved in the courtyard of the museum in the castle at Butrint.
SF: none.
Dimensions: height: 0.165m; length: 0.580 m; width: 0.280 m.
Material: white limestone
A capital block uniform with cat. nos 38 and 48.
Date: pre-AD 400.

COLUMNS AND PILASTERS

50). *Fragment of a fluted column* (Fig. 8.7-16)
Context: 1133. Triconch Room 14 (north wing). Phase 8: midden or dump, *c*. AD 525–50.
SF 96.
Dimensions: height: 0.183 m; width: 0.155 m; depth: 14 mm; interval between arises: 53 mm; depth of flutes: 12 mm.
Material: white limestone
A fragment of a fluted column.
Date: Roman imperial/late Roman.

51). *Sections from two heart-shaped columnar corner piers* (Fig. 8.7-17)
Context: by the Vivari Channel, outside the 5th-century city wall, just to the east of the Triconch *domus*, unstratified.
SF: none.
Dimensions: Preserved height: a). 0.61 m; b). 0.51 m; max. width: a). 0.89 m; b). 0.86 m; depth: a). 0.72 m; b). 0.63 m.
Material: Egyptian granite, white with dense black and purple inclusions.
Two drums from the columnar corner piers of an imposing peristyle court. These are heart-shaped in section, with two abutting semi-circular formations on the interior side forming engaged column-shafts, continuing into two straight faces which meet at right-angles on the exterior corner. The type, in widespread use in the central and eastern Mediterranean between the late 4th century BC (Harbour Stoa at Miletus) and the 6th century AD, was employed for the corner-angles of peristyle courts and the colonnaded ambulatories of basilical buildings (Dell'Acqua 2014). In the 3rd and 2nd centuries BC it was in common use in Ionia, in the porticoes of stoai, and in the 1st and 2nd centuries AD it was widely used in temples, particularly in the eastern provinces; it was used in synagogues in Palestine and Asia Minor between the 1st century BC and the 6th century AD, and also in Christian buildings on Cyprus in the 4th and 5th centuries, in the basilicas of Ayios Philon (Du Plat Taylor and Megaw 1981, 210–11, 215, 234, fig. 54) and Campanopetra (Roux 1998, 49, 66, figs 53a-e), and in the Palaestra at Salamis (pers. comm., Richard Maguire). There are no indications that these derive from a colonnade in the Triconch *domus*, although it is the nearest known substantial building to their place of discovery.
Date: uncertain, Hellenistic, Roman imperial, late Roman?

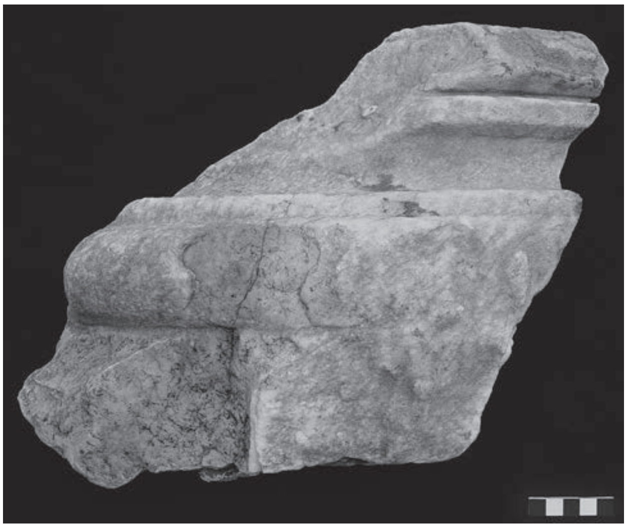


Figure 8.7-18. Fragment of large column base (Stone cat. no. 54)

52). *Fragmentary columnar pier formed of two joined colonettes*
Context: Triconch area, unstratified.
SF: none.
Dimensions: preserved height: 0.88 m; maximum width at base: 0.39 m; diameter of engaged colonettes: *c*. 0.39 m.
Material: fine white limestone.
A pier consisting of two slender three-quarter engaged colonettes flanking a central projecting pilaster fillet 0.112 m wide. A simple stepped moulding at the preserved end. Socket in preserved end 25 × 25 mm and 40 mm deep. In design this pier is uniform with three similarly formed capital blocks found in the area of the *domus* (cat. nos 38, 48 and 49), although its dimensions are slightly larger. It must derive from the same structure, probably from a window or possibly a delicately colonnaded peristyle.
Date: pre-AD 400.

BASES

53). *Column base*
Context: 5343. Triconch Room 23 (south wing). Phase 5: rubble layer, *c*. AD 420–50.
SF 3143.
Dimensions: sides: 0.330 × 0.330 m; height: 0.101 m; diameter of column setting: 0.295 m.
Material: medium/fine-crystalled white marble.
A complete square column-base. The lowest level of the profile is a rectangular fillet surmounted by a quarter-rounded moulding, which in turn carries the vertically sided circular setting for the column. The surfaces are finished but not polished or smoothly worked.
Date: Roman period.

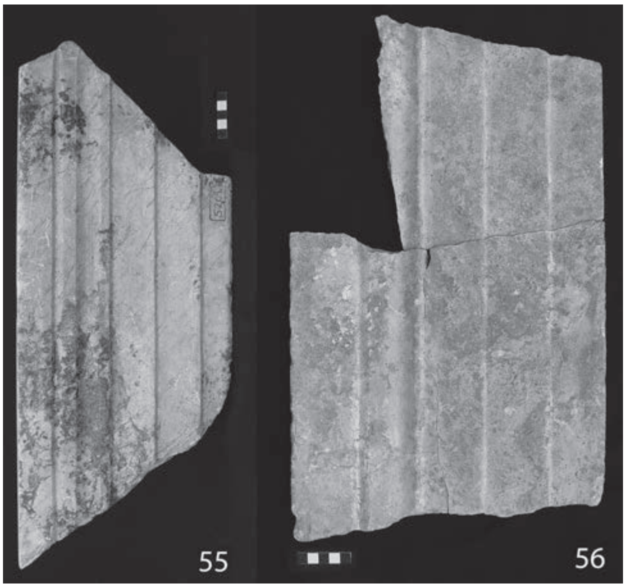


Figure 8.7-19. Fragments of door-frames (Stone cat. nos 55 and 56)

54). *Fragment of large column base* (Fig. 8.7-18)
Context: 5399. Triconch Room 16 (courtyard), area 1. Phases 12–13, demolition dump, early 10th to late 12th century.
SF: none.
Dimensions: height: 0.250 m; width: 0.260 m; preserved depth: 90 mm; original diameter of column *c*. 1 m.
Material: medium/fine-crystalled white marble.
Fragment from the base of a large column. Part of the moulded profiling is preserved. The lowest level of the profile is damaged; above this is a torus surmounted by a vertical fascia, a deep scotia and a thin fillet.
Date: Roman period.

DOOR-FRAMES AND THRESHOLDS

55). *Fragment of a profiled door-frame* (Fig. 8.7-19)
Context: 5209. Triconch Room 18 (long gallery). Phase 3: fill of drain running from peristyle, *c*. AD 400.
SF: none.
Dimensions: length: 0.605 m; width: 0.247 m; thickness: 43–60 mm.
Material: medium-large-crystalled grey/white marble (Proconnesian).
A fragment of revetment, profiled with a sequence of angled fascias and an edge moulding (a narrow scotia followed by two narrow fascias separated by a shallow v-groove on the display face. Smoothly worked and polished on the display face and roughly work on the back. There is a set-back along the inner edge on the back. From a door-frame.
Date: Roman imperial.

56). *Fragment of door-frame* (Fig. 8.7-19)
Context: 5327. Triconch (south wing). Phase 5: clay levelling deposit, early to mid-5th century.
SF 3138.
Level: 99.50 1/3.
Dimensions: height: 0.475m; width: 0.279 m; thickness 28 mm.
Material: medium/large-crystalled white marble with grey

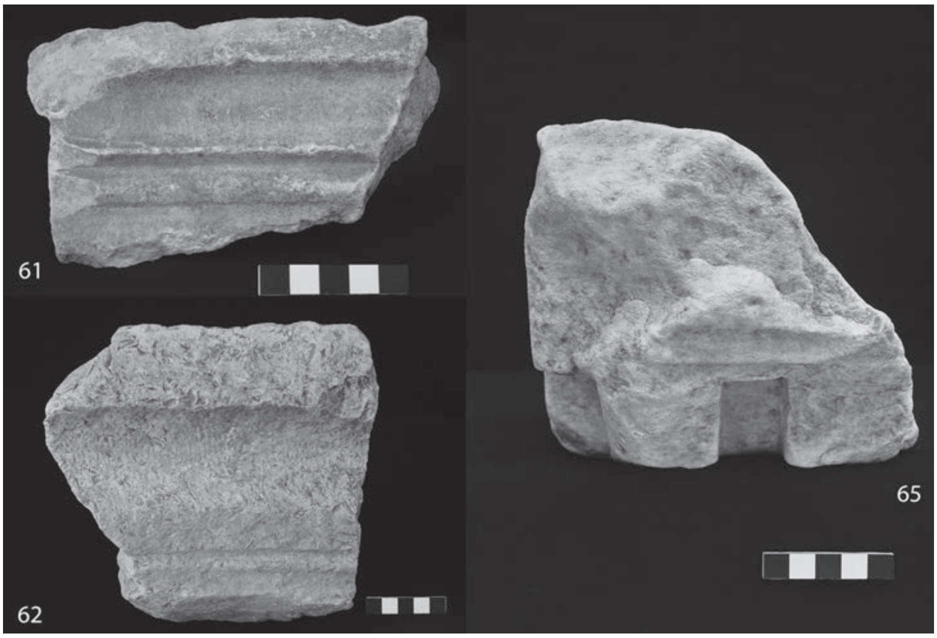


Figure 8.7-20. Fragments of cornice mouldings (Stone cat. nos 61, 62 and 65)

veins (Proconnesian).
Three joining fragments of revetment, profiled with a sequence of three angled fascias, followed by a narrow scotia and a fillet, the edge of which is roughly finished. Smoothly worked and polished on both faces. Broken at the sides and top. From the frame of a doorway.
Date: Roman period.

57). *Fragment of profiled revetment, possibly from a door-frame.*
Context: 1487. Triconch Room 22 (south wing). Phase 7: tile rubble, early 6th century.
SF: none.
Dimensions: 200 × 80 × 33 mm.
Material: whitish marble with dark grey veins.
Fragment of revetment, profiled on one face with two slightly inclined fascias framing a shallow scotia and a fillet-moulding. Possibly from a door-frame.
Date: Roman imperial/late Roman.

58). *Fragment of threshold*
Context: 1487. Triconch Room 22 (south wing). Phase 7: tile rubble, early 6th century.
SF: none.
Dimensions: 0.440 × 0.430 m × 90 mm.
Material: Local pink limestone.
Fragment of a large threshold in local pink limestone, with rebate for a door and the hole for the hinge-post.
Date: 5th century or earlier.

PROFILED ELEMENTS - CORNICE MOULDINGS

59). *Section of cornice moulding*
Context: 5287. Triconch, adjacent to city wall. Phases 3–5?: wall, 4th to early 5th century.
SF 3142.
Dimensions: height: 0.150 m; width: 0.665 m; depth: 0.160 m.
Material: fine-medium-crystalled white marble.
Length of cornice with a *cyma recta* above a row of egg-and-dart. The rear face is roughly finished and is acute-angled from the upper face, so as to project the display-face downwards at an inclined angle. Included in later wall as *spolium.*
Date: Roman imperial.

60). *Fragment of cornice moulding*
Context: 5013. Triconch Room 18. Phase 8: mussel-shell layer, mid-6th century (*c*. AD 525–50).
SF: none.
Dimensions: height: 0.18 m; width: 95 mm; depth: 60 mm.
Material: white limestone.
Fragment of cornice, with worn profile on one sloping side.
Date: early 5th century or earlier.

61). *Fragment of cornice moulding* (Fig. 8.7-20)
Context: 5534. Triconch Room 20 (south wing). Phase 10: rubble layer, late 6th to early 7th century.
SF: none.
Dimensions: height: 80 mm; width: 0.157 m; depth: 49 mm.
Material: white marble.
Fragment of cornice moulding, with a *cyma reversa* surmounted by a cavetto, and then a vertical fascia. The upper surface very roughly levelled. Broken off on the rear face.
Date: Roman imperial/late Roman.

62). *Section of cornice moulding* (Fig. 8.7-20)
Context: 5556. Triconch Room 20 (south wing). Phase

10: fill of construction cut for stone-lined pit, late 6th to early 7th century.
SF: none.
Dimensions: height: 0.135 m; width: 0.165 m; depth: 0.185 m.
Material: local white limestone.
Section of cornice with a *cyma recta* moulding.
Date: Roman imperial?

63). *Fragment of cornice moulding*
Context: 1411. Triconch Room 25 (western entrance vestibule). Phase 12: clay deposit or rough surface, early to late 10th century (with later intrusive material).
SF: none.
Dimensions: height: 0.20 m; width: 0.24 m; depth: 0.11 m.
Material: medium-crystalled white marble.
Fragment of a cornice moulding with fascia surmounted by a torus and a *cyma reversa*. Broken at both ends, above and below and behind.
Date: Late Roman?

64). *Fragment of cornice moulding*
Context: 3072. Merchant's House Room 38. Phases 14–15: rubble deposit, 14th century or later.
SF: none.
Dimensions: height: 0.130 m; width: 0.217 m; depth: 50 mm.
Material: white marble.
Fragment of a cornice with a small torus surmounted by *cyma reversa* with exaggerated bulging wave and a plain fascia.
Date: Late Roman?

65). *Fragment of cornice moulding* (Fig. 8.7-20)
Context: 3132. Merchant's House Room 45. Phase 15: rubble deposit, 15th century.
SF: none.
Dimensions: height: 0132 m; width: 0.153 m; depth: 0. 245 m.
Material: fine-crystalled white marble.
Fragment of cornice with a dentil moulding surmounted by a *cyma reversa*, severely fractured and damaged worked surfaces.
Date: Roman imperial/late Roman.

66). *Fragment of cornice moulding*
Context: 5640. Triconch Room 29 (west wing). Phase 15: topsoil, 15th century or later.
SF 3305.
Dimensions: length: 0.140 m; height: 0.110 m; depth: 93 mm.
Material: fine-crystalled white marble.
Short length of cornice moulding with a *cyma recta* surmounted by a prominent plain ovolo/half-torus moulding. The rear face quite smoothly finished; the upper surface roughly levelled.
Date: Roman imperial/late Roman.

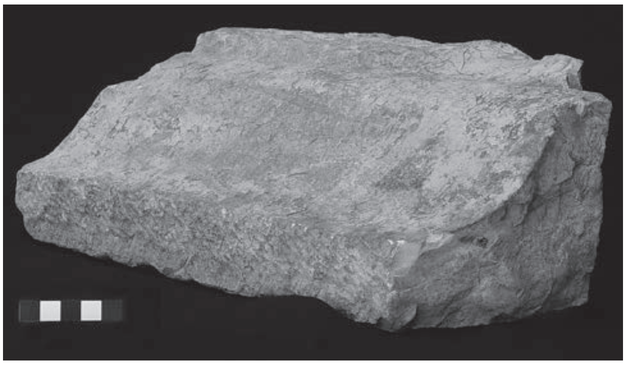


Figure 8.7-21. Fragment of base moulding (Stone cat. 68)

PROFILED ELEMENTS – BASE MOULDINGS

67). *Fragment of base moulding*
Context: 5287. Triconch, adjacent to city wall. Phases 3–5?: wall, 4th to early 5th century.
SF: none.
Dimensions: height: 0.150 m; width: 0.320 m; depth: 0.244 m.
Material: hard white limestone.
Section of base moulding from a pilaster or the base of a monument, with a low reverse cavetto surmounted by a *cyma reversa*. The surfaces are chisel-smoothed – with chisel marks visible to the eye. Included in wall as *spolium*.
Date: Roman imperial/late Roman.

68). *Fragment of base moulding* (Fig. 8.7-21)
Context: 5014. Triconch Room 23. Phase 7: tile dump or roof collapse, early 6th century.
SF: none.
Dimensions: height: 0.125 m; length: 0.375 m; depth: 0.272 m.
Material: white limestone.
Section of base moulding with a *cyma reversa* moulding. The surfaces are chisel-smoothed – with chisel marks visible to the eye. The upper surface is more roughly levelled and lightly pitted for adhesion. Possibly from a low plinth.
Date: 5th century or earlier.

69). *Fragment of base-moulding or cornice*.
Context: 5339. Triconch Room 27 (west wing). Phases 7–14: rubble layer relating to collapse of circular stone structure or medieval wall, 6th to 13th century.
SF 3147.
Dimensions: 0.165 × 0.112 m × 49 mm.
Material: white limestone.
Section of base or cornice moulding profiled with a *cyma*. Broken at the sides and the back.
Date: Roman imperial/late Roman.

70). *Fragment of base moulding*
Context: 5264 Triconch Room 21 (south wing). Phase 10:

rubble deposit, late 6th to early 7th century (AD 575–650).
SF 2790.
Dimensions: height; 0.25 m; width: 0.27 m; depth: 0.11 m.
Material: white crystalline limestone.
Substantial fragment of a base moulding, with the lower curve of a *cyma recta* preserved. Display surface finished but with chisel marks visible.
Date: Roman imperial/late Roman.

VENEER FILLETS
71). *Stone fillet*
Context: 5039. Triconch Room 19 (south wing). Phase 14+: earth and rubble deposit overlying medieval circular structure, 13th to 14th century or later.
SF: none.
Dimensions: 95 × 45 × 20 mm.
Material: white marble.
Fragment of a worked stone fillet, broken at both ends, smoothly worked on both faces. One edge more smoothly rounded than the other.
Date: probably late Roman.

SHEET-MARBLE – VENEER
72). *Fragment of marble veneer*
Context: 5546. Triconch Room 29/31 (west wing). Phase 1: fill of early trackway, first half of 3rd century.
SF: none.
Dimensions: 87 × 62 × 12–13 mm.
Material: Docimion marble (*pavonazzetto*).
Date: Roman imperial/late Roman.

73). *Two fragments of veneer*
Context: 3364. Triconch Room 31 (west wing). Phases 1–2: demolition deposit associated with early wall, 2nd to 4th century.
SF: none.
Dimensions: a). 40 × 36 × 8–9 mm; b). 21 × 15 × 8 mm.
Material: Carystian green marble (*cipollino*).
Two small fragments of *cipollino* veneer. Smoothly worked and polished on both faces, but no preserved edges.
Date: probably 2nd to 4th century.

74). *Irregular slab of verde antico*
Context: 3156. Merchant's House Room 37. Phases 3–5: clay surface or make-up for floor 4057, *c.* AD 400–50.
SF: none.
Material: Thesssalian green marble (*verde antico*).
Irregular slab, smoothly polished on both faces; no original edges.
Date: 5th century or earlier.

75). *Fragment of sheet-marble veneer* (Plate 8.6)
Context: 5283. Triconch Room 23 (west wing). Phase 5: packing/support for *dolium* adjacent to north door of room, AD 420–50.
SF: none.
Dimensions: 0.213 × 0.187 m × 11–12 mm.
Material: Docimion marble (*pavonazzetto*).
A fragment of veneer in *pavonazzetto* marble, broken on all sides.
Date: Roman imperial/late Roman.

76). *Three fragments of veneer*
Context: 5302. Triconch Room 23 (south wing). Phase 5: clay deposit (collapsed wall?), AD 425–50.
SF: none.
a). Dimensions: 0.16 × 90 × 19 mm.
Material: Thessalian green marble (*verde antico*).
A fragmentary sheet of veneer; both faces are smoothly worked and polished.
b). Dimensions: 0.185 m × 0.106 m × 10–11 mm.
Material: black slate-like stone.
A fragmentary sheet of veneer; unevenly levelled on both surfaces.
c). Dimensions: 75 × 90 × 18–19 mm.
Material: alabaster?
A small fragment of veneer; smoothly finished and polished on both faces.
Date: Roman imperial/late Roman.

77). *Fragment of sheet-marble veneer*
Context: 5351. Triconch Room 23 (south wing). Phase 5: rubble layer, *c.* AD 420–50.
SF: none.
Dimensions: 48 mm × 0.145 m × 15–16 mm.
Material: medium/fine-crystalled white marble.
A carefully finished rectangular panel of marble veneer, broken off at each end.
Date: Roman imperial/late Roman.

78). *Three fragments of marble veneer*
Context: 1865. Triconch Room 22 (south wing). Phases 5–6: deposit associated with collapsed drain cover, 5th century.
SF: none.
Dimensions: a). 0.272 × 0.125 m × 18 mm; b). large fragment, thickness: 13–14 mm; c). thickness: 20 mm.
Material: a). crystalline whitish limestone with micaceous inclusions; b). and c). fine-crystalled white marble.
Three fragments of marble veneer.
Date: Roman imperial/late Roman.

79). *Fragment of marble veneer*
Context: 5629. Triconch Room 16 (courtyard, south portico). Phases 5–6, 5th century.
SF: none.
Dimensions: 77 × 56 × 20–22 mm.
Material: Carystian green marble (*cipollino*).
Fragment of *cipollino* veneer; a thick slab with a splendid swirl of veining.
Date: Roman imperial/late Roman.

80). *Fragments of marble veneer*
Context: 1490. Triconch Room 25 (west wing). Phase 6:

trample deposit above mosaic, mid- to late 5th century.
SF: none.
Dimensions: Proconnesian marble: 14–15 mm thick; white marble: 10 mm. thick.
Material: mostly Proconnesian marble; some fine-crystalled white marble.
Date: 5th century or earlier.

81). *Triangular slab of limestone*
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF: none.
Dimensions: 0.105 m × 85 mm.
Material: white crystalline limestone.
Small sub-triangular slab of white marble, smoothly worked on one face, more roughly on the other. No original edges preserved.
Date: 5th century or earlier.

82). *Small irregular fragment of porphyry veneer*
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF: none.
Dimensions: 58 × 50 × 6–7 mm.
Material: Porphyry.
Irregular fragment of porphyry veneer, finely finished and polished on both faces; no original edges preserved.
Date: 5th century or earlier.

83). *Ten fragments of marble veneer*
Context: 1449. Triconch Room 16 (courtyard, western portico). Phase 7: tile dump, AD 450–500.
SF: none.
Dimensions: thickness: 15, 16, 17, 18 mm.
Material: for the most part medium-large-crystalled white marble.
Most of these fragments have faintly pinkish plaster adhering to one face.
Date: 5th century or earlier.

84). *Fragments of marble veneer*
Context: 1449. Triconch Room 16 (courtyard, western portico). Phase 7: tile dump, AD 450–500.
SF: none.
Dimensions: fine-crystalled white marble: 8 mm thick; large-crystalled marble: 20–22 and 18 mm thick.
Material: fine-crystalled white marble with some greenish micacous inclusions; large-crystalled white marble.
Smoothly polished on both faces.
Date: 5th century or earlier.

85). *Two fragments of marble veneer, one with a profiled surface*
Context: 1487. Triconch Room 22 (south wing). Phase 7: tile rubble, early 6th century
SF: none.
a). Dimensions: 120 × 110 mm; thickness: 24 mm.
Smoothly polished on both surfaces. No worked edges preserved.
b). Dimensions: 200 × 128 mm; thickness: 32 mm.
Profiled on one face. One straight edge preserved.
Material: whitish marble with dark grey veins.
Date: Roman imperial/late Roman.

86). *Four fragments of sheet-marble veneer*
Context: 5203. Triconch Room 18 (long gallery). Phase 7: small hearth at west end of long gallery, early 6th century.
SF: none.
a). Dimensions: 133 mm × 68 mm; thickness: 8–9 mm.
Material: Carystian green marble (*cipollino*).
Smoothly worked and finished on both faces – one more so than the other.
b). Dimensions: 0.13 m × 43 mm; thickness: 13 mm.
Material: medium-crystalled white marble.
c). Dimensions: 55 × 45 mm; thickness: 12 mm.
Material: medium-crystalled white marble.
Smoothly worked and polished on both surfaces.
d). Dimensions: 0.236 × 0.185 m; thickness: 7–16 mm.
Material: medium-large-crystalled white marble.
Smoothly worked and finished on both faces.
Four fragments of marble veneer.
Date: Roman imperial/late Roman.

87). *Irregular slab of Docimion marble*
Context: 1523. Triconch Room 31 (west wing). Phase 8: deposit or possible surface, mid-6th century.
SF: none.
Dimensions: 0.170 × 0.140 m; thickness: 28–30 mm.
Material: Docimion (*pavonazzetto*) marble.
Both sides smoothly finished, one more polished than the other.
Date: Roman imperial/late Roman.

88). *11 fragments of* cipollino *veneer*
Context: 3134. Merchant's House Room 37. Phase 8: demolition rubble, early to mid-6th century.
SF: none.
Dimensions: thickness: 8, 15, 11, 16, 17, 16, 10, 11, 13, 11 and 12–15 mm.
Material: Carystian green (*cipollino*) marble.
Both surfaces of these fragments are smoothed and polished; some preserve original edges, cut vertically. Some fragments have faintly pinkish plaster adhering to their rear surfaces.
These pieces may have fallen from the dado veneer of the upper chamber of Room 37, in its Phase 6 two-storey transformation (Bowden and Mitchell 2007, 471) but more likely they formed part of the rough flooring of the lower room (Bowden *et al.* 2011e, 169–70).
Date: Roman imperial, reused in 5th century.

89). *Two fragments of marble veneer*
Context: 3134. Merchant's House Room 37. Phase 8: demolition rubble, early to mid-6th century.

SF: none.
Dimensions: thickness: 14 and 15 mm.
Material: large-crystalled white marble.
Both surfaces of these fragments are smoothed and polished.
Date: Roman imperial/late Roman.

90). *Fragment of sheet-marble veneer*
Context: 5270. Triconch Room 21 (south wing). Phase 8: mussel-shell deposit, early to mid-6th century (*c.* AD 525–50).
SF: none.
Dimensions: 0.10 m × 80 mm; thickness: 18 mm.
Material: Carystian green marble (*cipollino*).
A substantial panel of marble. Both faces are smoothly worked and polished. Two edges are original and meet at right-angles; one is vertical and smoothed and polished, the other is roughly bevelled.
Date: Roman imperial/late Roman.

91). *Two fragments of Docimion marble veneer*
Context: 1416. Triconch Room 29 (west wing). Phase 10: rubble deposit, late 6th to early 7th century.
SF: none.
a). Dimensions: 0.133 m × 96 mm; thickness: 18–22 mm.
b). Dimensions: 71 × 40 × 9–10 mm.
Material: Docimion (*pavonazzetto*) marble.
Two fragments of *pavonazzetto* sheet-veneer. No preserved worked edges.
Date: Roman imperial/late Roman.

92). *Small fragment of white translucent marble*
Context: 4001. Merchant’s House Room 43. Phase 10: dumping, late 6th to early 7th century.
SF: none.
Dimensions: 65 × 45 mm; thickness: 16 mm.
Material: large-crystalled white translucent marble.
Irregular slab of wonderfully translucent white marble, smoothly polished on both faces; no original edges. Plaster adhering to rear face for attachment.
Date: Roman imperial/late Roman.

93). *Two fragments of veneer*
Context: 5355. Triconch Room 16 (courtyard, south portico). Phases 10–12: demolition deposit, 10th to 12th century.
SF: none.
a). Dimensions: 0.142 m × 75 mm; thickness: 16 mm.
Material: white marble.
b). Dimensions: 0.11 m × 92 mm; thickness: 7–8 mm.
Material: grey marble with dark vermiculate veins.
Part of one very straight edge is preserved.
Two fragments of marble veneer.
Date: Roman imperial/late Roman.

94). *Two fragments of* cipollino *veneer*
Context: 5547. Triconch Room 16 (courtyard). Pre-Phase 12: sand-silt layer, largely unexcavated, pre 10th century.
SF: none.
a). Dimensions: 0.17 m × 83 mm; thickness 0.175 m.
b). Dimensions: 70 mm × 34 mm; thickness: 10-11 mm.
Material: Carystian green marble (*cipollino*).
Date: Roman period.

95). *Three fragments of marble veneer*
Context: 5547. Triconch Room 16 (courtyard). Pre-Phase 12: sand-silt layer, largely unexcavated, pre-10th century.
SF: none.
a). Dimensions: 0.123 m × 83 mm; thickness: 21–22 mm.
Material: medium-crystalled white marble.
Smoothly worked and finished on both faces. A short length of an original roughly finished edge is preserved.
b). Dimensions: 0.115 m × 50 mm; thickness: 25 mm.
Material: Carystian green marble (*cipollino*).
c). Dimensions: 72 × 58 mm; thickness: 10–11 mm.
Material: Carystian green marble (*cipollino*).
Date: Roman imperial/late Roman.

96). *Irregular slab of white marble*
Context: 1708. Triconch Room 16 (courtyard). Phases 12–13: humic build-up in courtyard, 10th to 12th century.
SF: none.
Dimensions: 97 × 83 mm; thickness: 14 mm.
Material: fine-crystalled white marble.
Irregular slab of white marble, smoothly polished on both faces. No original edges are preserved.
Date: Roman imperial/late Roman.

97). *Three fragments of marble veneer*
Context: 2053. Triconch Room 16. Phases 12–13: humic build-up in courtyard, 10th to 12th century.
SF: none.
a). Fragment of sheet-marble veneer.
Dimensions 0.14 × 0.12 m; thickness: 16 mm.
Material: medium-crystalled white marble,
Smoothed and polished on both faces.
b). Fragment of sheet-marble veneer.
Dimensions: 0.12 m × 62 mm; thickness: 15–16 mm.
Material: medium-crystalled white marble.
Smoothly worked and polished on both faces.
c). Fragment of sheet-marble veneer.
Dimensions: 0.122 × 0.120 m; thickness: 21–22 mm.
Material: medium-crystalled white marble.
The upper surface smoothly worked and polished; the rear face roughly levelled.
Two originally adjoining edges – at right-angles. One edge quite smoothly worked and vertical, the other edge roughly rounded.
Date: Roman imperial/late Roman.

98). *Three fragments of Docimian marble veneer* (two joining)
Context: 1480. Triconch Room 31 (west wing): Phase 13: clay bedding for pavement, early 11th to late 12th century.

SF: none.
Dimensions: 0.135 m × 54 mm; thickness: 20 mm; 90 × 65 mm; thickness: 17 mm.
Material: Docimian (*pavonazzetto*) marble.
Rather shattered and consumed pieces of sheet-marble, smoothly worked on both faces. No original edges are preserved. Two of the fragments join.
Date: Roman imperial/late Roman.

99). *Small sheet of dark grey limestone/ marble veneer*
Context: 1899. Triconch Room 16 (courtyard). Phases 13–14: rubble layer, 11th to 14th century.
SF: none.
Dimensions: 0.144 m × 95 mm; thickness 15 mm.
Material: dark grey/blackish grey crystalline limestone/ large-crystalled marble.
A fragment of veneer with smoothly worked surfaces.
Date: Probably Roman.

100). *Fragment of sheet-marble veneer*
Context: 5297. Triconch Room 20 (south wing). Phase 15: cleaning of remains of topsoil with considerable late antique finds, unstratified.
SF: none.
Dimensions: 0.155 × 0.123 m; thickness: 15–17 mm.
Material: Thesssalian green marble (*verde antico*)
Unevenly smoothed on display face and very roughly levelled on rear face. No original edges preserved.
Date: Roman imperial/late Roman.

PAINTED MARBLE VENEER.

101). *Fragment of painted veneer* (Plate 8.6)
Context: 4050. Merchant's House Room 39 (courtyard). Phase 8: demolition deposit, early to mid-6th century.
SF: none.
Dimensions: height: 0.24 m; width: 0.17 m; thickness: 15 mm
Material: Carystian green (*cipollino*) marble.
A fragment of Carystian green marble-sheet, smoothly polished on one face and quite smoothly worked on the other. Broken on all sides. The polished side has been painted yellow ochre with superimposed parallel bands of brown umber 30–35 mm wide, at intervals of *c*. 30 mm, to create a banded effect, yellow and brown, fictive marbling, to replace and improve on the natural veining of the stone with a variety of a more regular and exotic kind. The painted surface probably represents a late antique reuse of the slab. There are some substantial areas of paint loss.
Date: probably 4th to 5th century.

SCRAPS OF WORKED STONE

102). *Four flakes of Proconnesian marble*
Context: 1449 (2000). Triconch Room 16 (courtyard, western portico). Phase 7: tile dump, AD 450–500.
SF: none.
Dimensions: thickness: a). 125 × 85 × 10 mm; b). 125 × 60 × 10 mm; c). 100 × 67 × 22 mm; d). 65 × 46 × 18 mm.
Material: medium-large-crystalled white marble with grey streaks; Proconnesian.
Date: 5th century or earlier.

103). *Fragment of white marble*
Context: 1449. Triconch Room 16 (courtyard, western portico). Phase 7: tile dump, AD 450–500.
SF: none.
Material: fine-crystalled white marble.
No worked surfaces but the base of a 16 × 17 mm socket is preserved.
Date: 5th century or earlier.

104). *Irregular slab of* rosso antico
Context: 1449. Triconch Room 16 (courtyard, western portico). Phase 7: tile dump, AD 450–500.
SF: none.
Material: *Rosso antico*.
Dimensions: 0.380 × 0.150 m; thickness: 50-30 mm.
Substantial slab/sheet of *rosso antico*, roughly levelled on both surfaces; no original edges are preserved.
Date: 5th century or earlier.

105). *Irregular fragment of* rosso antico
Context: 1612. Triconch Room 24 (reception room). Phase 8: fill of pit or post-hole, early to mid-6th century.
SF: none.
Material: *rosso antico*.
Date: Probably Roman.

106). *Flake of white marble*
Context: 1899. Triconch Room 16 (courtyard). Phases 13–14: rubble layer, 11th to 14th century.
SF: none.
Dimensions: 81 × 50 × 19 mm.
Material: fine-crystalled white marble.
Date: Roman imperial/late Roman.

INSCRIPTIONS ON STONE – LATIN

107). Fragmentary inscription
Context: 4056. Merchant's House Room 37. Phase 6: floor surface, mid- to late 5th century.
SF 2620.
Dimensions: height: 0.11 m; width: 72 mm; thickness: 15–16 mm.
Material: fine/medium-fine-crystalled white marble.
The letters are backward-slanting, in a rustic capital script. The E has short, pointed, upward-curling bars. I is a jaunty letter with indented terminals and pronounced serifs.
[…]EI[us?…]
The serifed terminals of characters preceding and following the two complete letters are preserved. The upper terminal of a left-hand slanting member of the following character suggests a V, possibly giving [….] eius [….]
There is a Philocalan cast to the serifs of the I. This and the form of the E, with its short upturned bars and the back-slanted inflection of the letters indicate a date in the

later 4th or the first half of the 5th century.
Date: probably late 4th to 5th century.

8. Ceramic artefacts

The small assemblage of ceramic artefacts from the Triconch *domus* and the Merchant's House consisted of a fragment of an architectural frieze, part of a special-purpose tile, seven spindle-whorls, ten loom-weights, three lamps with Christian imagery, an *unguentarium*, a small clay sphere and a section of the stem of a clay pipe.

The architectural fragment belonged to the columnar articulation of a wall (cat. 1). One volute and the rosette of an ionic-type capital are preserved. This must have crowned a pilaster.

Spindle-whorls were found in various areas of the *domus* and the Merchant's House but in no particular concentrations which might identify particular spaces as given over to spinning in particular phases of the life of the site. The three from the courtyard and its porticoes (Room 16) were all from secondary contexts, one from the 6th century, the others from 10th- to 12th-century levels. Of the two from the apsidal reception room (Room 24), only one was from an early context (an occupation trample over the mosaic pavement). The one example from the Merchant's House was from an unstratified topsoil context. The three whorls from early 6th- to early 7th-century contexts are compact sub-spherical or squat truncated biconical forms (cat. nos 3, 4 and 5). Two of the others, from unstratified contexts (cat. nos 9 and 10) are of the same general type. The other two from secondary contexts of 10th- to 12th-century date in the courtyard (Room 16) are different, with flattened carinated profiles (cat. nos 7 and 8). These may be later types. Although there is insufficient evidence to locate spinning activity in any particular rooms of the complex, the presence of these whorls indicates that yarn was being spun in the general area of the courtyard and the southern wing of the peristyle around the 6th century

The ten loom-weights likewise were found in various parts of the site, with no marked concentrations indicating precise locations of productive activity. None of the three weights from the courtyard (Room 16) area is from an early context; two are round but differ in detail (cat. nos 13 and 16) and one is a slender pyramid of Roman type (cat. 18). Three were found in the south and west ranges of the *domus*, all in 5th- to 6th-century contexts (cat. nos 11, 12 and 15; Rooms 23, 25 and 26); and three in three different spaces in the Merchant's House, two in early contexts (cat. nos 14, 17 and 19; Rooms 39, 38, 37 respectively). The weights from early contexts show a variety of forms: flat-shaped discs (cat. 19), sub-circular pieces cut from tile (cat. nos 12, 13, 14 and 15), a rough flat octagon cut from tile (cat. 17), and a carefully formed doughnut-ring (cat. 11). There is no real evidence for prevalent types of loom-weight being made or used on the site. The presence of individual weights in and around the courtyard and in rooms in the western and southern ranges of the *domus* suggests the presence of looms in this area in the 5th and 6th centuries.

Four items (three lamps and an *unguentarium*) reveal the Christian cultural context of the occupants of the *domus* in the 5th and 6th centuries.[2] One lamp, from what is probably a collapsed roof in a context of the second quarter of the 5th century (Room 23 in the west range of the *domus*), carries the *chi-rho* monogram of Christ on its upper face (cat. 22). This may well have formed part of the domestic equipment of one of the dwellings that post-dated the abandonment of the *domus*. Another, simpler lamp (cat. 21), from a 6th-century abandonment context, may be residual from the last phase of the domus but may possibly be from a somewhat later occupation of the area. This carries simple ornamentation on its upper face and has a large cross inscribed on its base. The third lamp was found in the late 6th-/early 7th-century roof-collapse of the two-storey structure, Room 40, which had been constructed in the Merchant's House a generation before (cat. 23). The material recovered from the fall of the upper chamber gave indication that this was a building of some status. This lamp was an import, of Hayes Type II B, in Tunisian Red-Slip ware. The principal motif on the upper face is a large jewelled cross. The *unguentarium* is an object of rather different Christian reference: a tiny vessel associated with pilgrimage (cat. 24). A typical product of workshops supplying the basilica of St. John at Ephesus, in the second quarter of the 6th century, it was designed to contain a token of holy oil from the lamps burning at the shrine of the saint. This was found in a 6th-century midden in Room 14, in the north range of the peristyle, where is must have been deposited soon after it had been brought to Butrint in the second quarter of the century. Like the pendants and dress-fittings with Christian imagery, these items bear pointed witness to the predilection for visual symbolism of an apotropaic, protective nature, and for empowering objects and substances, which characterised the material frame of everyday life in the late antique Mediterranean (Dautermann Maguire *et al.* 1989).

ARCHITECTURAL

1). *Architectural fragment*
Context: 1879. Triconch Room 19. Phase 1: eastern wall of Room 18 continuing north into Room 19, 3rd century or earlier.
SF: none.
Dimensions: height: 0.140 m; length: 0.238 m; max depth: 0.100 m; thickness of decorated front face: 30 mm.
Material: terracotta.
Fragment of a terracotta capital frieze of inverted L-shaped section, with a deep horizontal return at the top. The display face is decorated in moulded relief, with the tightly spiralled left-hand volute (60 mm in diameter) and the 30 mm rosette of a pilaster capital surmounted by a 33 mm horizontal fillet. To the left of the capital the frieze is interrupted by a deep curving profile extending almost up to the fillet. This profile would appear to be designed to accommodate

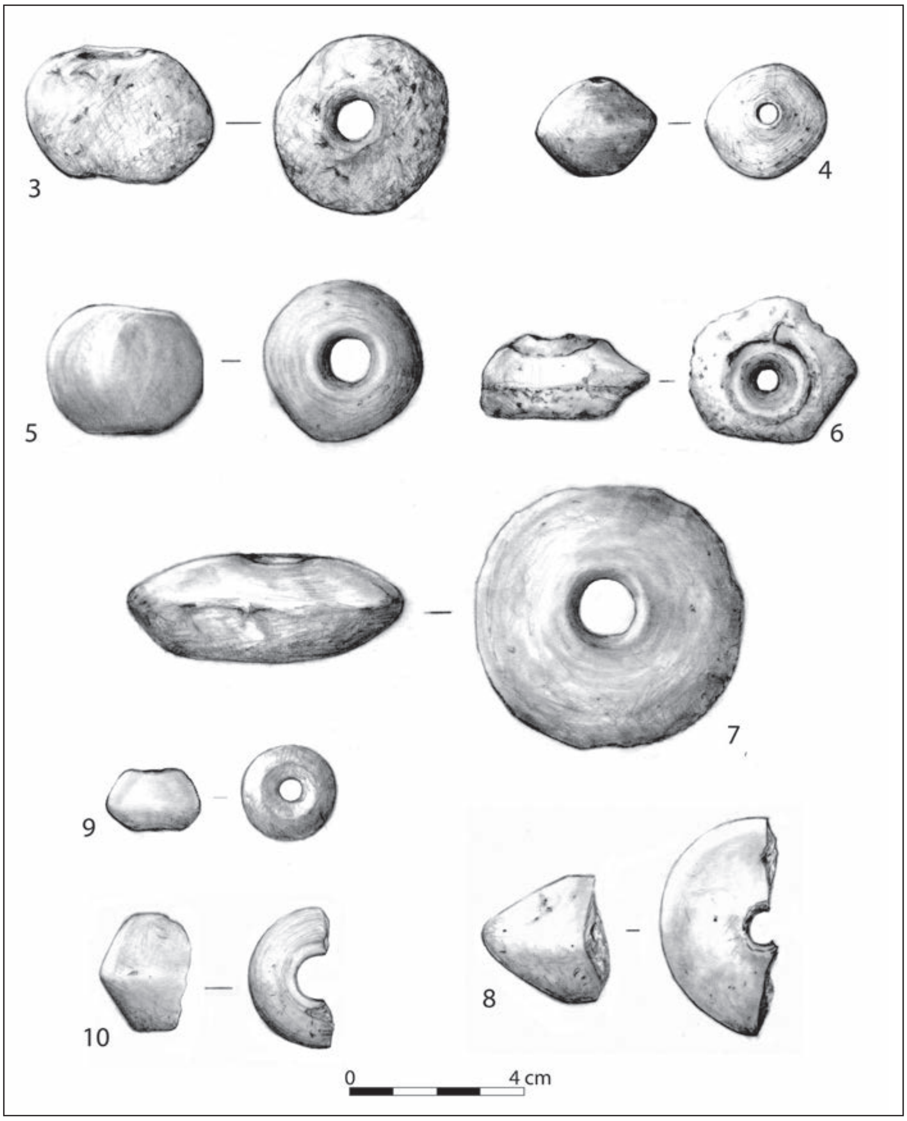


Figure 8.8-1. Ceramic spindle-whorls (Ceramic object cat. nos 3, 4, 5, 6, 7, 8, 9 and 10)

some architectural element.
Date: Roman imperial period.

2). *Fragment of tile*
Context: 1676. Triconch Room 18. Phase 9: layer sealing industrial activity, mid- to late 6th century.
SF: none.
Dimensions: 0.136 × 0.154 m; thickness: 42–47 mm
Material: brick, red fabric.
Fragment of special-purpose tile with one rounded edge and one straight edge preserved. The original form was either a quarter- or a semi-circle.
Date: 6th century or earlier.

SPINDLE-WHORLS
3). *Spindle-whorl* (Fig. 8.8-1 and Plate 8.7)
Context: 1300. Triconch Room 24 (reception room). Phase 7: trample/occupation above mosaic, early 6th century.
SF 858.
Dimensions: diameter: 42 mm; height: 29 mm; diameter of central perforation: 11 mm.
Material: ceramic. Pale maroon regional buff ware with lime inclusions.
A complete oblate sub-spherical spindle-whorl, with a straight-sided cylindrical central perforation.
Date: probably early 6th century.

4). *Spindle-whorl* (Fig. 8.8-1 and Plate 8.7)
Context: 3048. Triconch Room 16 (courtyard, west portico). Phases 9–10: demolition layer extending over western portico and into Room 25, mid- to late 6th century.
SF 2022.
Dimensions: diameter: 27–29 mm; height: 25 mm; diameter of central perforation: 5 mm.
Material: ceramic. Dull orange-brown fabric with chert and micacious inclusions; Diaporit ware?

A small sub-spherical faintly biconical spindle-whorl, with straight-sided cylindrical central perforation. Complete.
Date: 6th century or earlier.

5). *Spindle-whorl* (Fig. 8.8-1 and Plate 8.7)
Context: 5402. Triconch Room 19 (south wing). Phase 10: demolition layer, late 6th to early 7th century.
SF 3128.
Dimensions: diameter: 36 mm; height: 25–30 mm; diameter of central perforation: 11 mm.
Material: ceramic; regional ware, pale buff fabric.
A small sub-spherical spindle-whorl, truncated at one end, broken off at the other, with a straight-sided central perforation.
Date: late 6th to early 7th century or earlier.

6). *Small irregular spindle-whorl?* (Fig. 8.8-1 and Plate 8.7)
Context: 5322. Triconch Room 16 (courtyard). Phases 12–13: levelling deposit, early 10th to late 12th century.
SF 3309.
Dimensions: diameter: 33–39 mm; height: 18 mm; diameter of central perforation: 6 < 12 mm.
Material: ceramic. Light buff fabric.
A small irregularly formed sub-rounded artefact, with a central perforation which splays out at the upper opening. Probably a spindle-whorl. The lower surface is quite smooth while the upper surface is irregular with circling furrows; the circumference is fractured.
Date: 12th century or earlier; probably 5th to early 7th century.

7). *Spindle-whorl* (Fig. 8.8-1)
Context: 5399. Triconch Room 16 (courtyard). Phases 12–13, demolition dump, early 10th to late 12th century.
SF 3127.
Dimensions: diameter: 63–64 mm; max. thickness: 23 mm; diameter of central perforation: 14 mm.
Material: ceramic. Pale orangish buff fabric, regional buff ware.
A round spindle-whorl, with a flattened oblate lightly carinated profile and a straight-sided cylindrical central perforation. Quite smoothly finished. Fashioned for the purpose; not cut from a tile.
Date: uncertain, 10th to 12th century or earlier; probably 5th to early 7th century.

8). *Fragmentary spindle-whorl* (Fig. 8.8-1 and Plate 8.7)
Context: 1500. Triconch Room 16 (courtyard). Phase 13: rubble deposit, 11th to 12th century.
SF 986.
Dimensions: diameter: 50 mm; height: 29 mm; diameter of central perforation: 9 > 6 mm.
Material: ceramic. Fine-grained pale orange regional fabric.
Half of a flattened oblate carinated spindle-whorl, pierced by a tapering central perforation; broken through the perforation.
Date: uncertain, 12th century or earlier; probably 5th to early 7th century.

9). *Spindle-whorl* (Fig. 8.8-1 and Plate 8.7)
Context: 1114. Triconch Room 24. Phase 15: unstratified topsoil.
SF 616.
Dimensions: diameter: 22 mm; height: 14 mm; diameter of central perforation: 6 mm.
Material: ceramic; fine-grained buff ware.
A small spindle-whorl with rounded shoulders, straight inward-sloping sides and a straight-sided cylindrical central perforation. On the base the lip of the perforation is counter-sunk. Complete.
Date: uncertain, probably 5th to early 7th century.

10). *Fragmentary spindle-whorl* (Fig. 8.8-1 and Plate 8.7)
Context: Unstratified.
SF 650.
Dimensions: diameter: 31 mm; height: 26 mm; diameter of central perforation: 11 mm.
Material: ceramic, plain-ware reduced to a dark grey. Diaporit ware?
One half of a sub-spherical spindle-whorl, broken across the perforation. A small neat biconical form, truncated at top and bottom, with a straight-sided cylindrical central perforation.
Date: uncertain, probably 5th to early 7th century.

LOOM-WEIGHTS

11). *Annular loom-weight* (Fig. 8.8-2 and Plate 8.5)
Context: 1532. Triconch Room 25 (west wing). Phase 6: trample deposit above mosaic, mid- to late 5th century.
SF 783.
Dimensions: diameter: 56–58 mm; height: 21 mm; diameter of central perforation: 20 mm.
Material: ceramic. Pinkish imported fabric with volcanic glass inclusions and 0.5–1 mm gold mica flakes. Keay 52 amphora fabric, from eastern Sicily or Calabria. The weight was fashioned from this fabric at the place of production; not cut down from an amphora.
A large ceramic annular doughnut-shaped loom weight. Complete.
Date: probably 5th century.

12). *Large loom-weight* (Fig. 8.8-2 and Plate 8.5)
Context: 1422. Triconch Room 26 (west wing). Phase 7: tile rubble, early 6th century.
SF 1967.
Dimensions: diameter: 90–100 mm; height: 27–29 mm; diameter of central perforation: 20–21 mm.
Material: ceramic. Pale orange fabric with mud-stone, lime and argillaceous crushed tile inclusions. Imported ware.
A large sub-circular loom weight, with flat upper and lower surfaces and a straight-sided cylindrical central perforation. Complete. Cut from a tile.
Date: early 6th century or earlier.

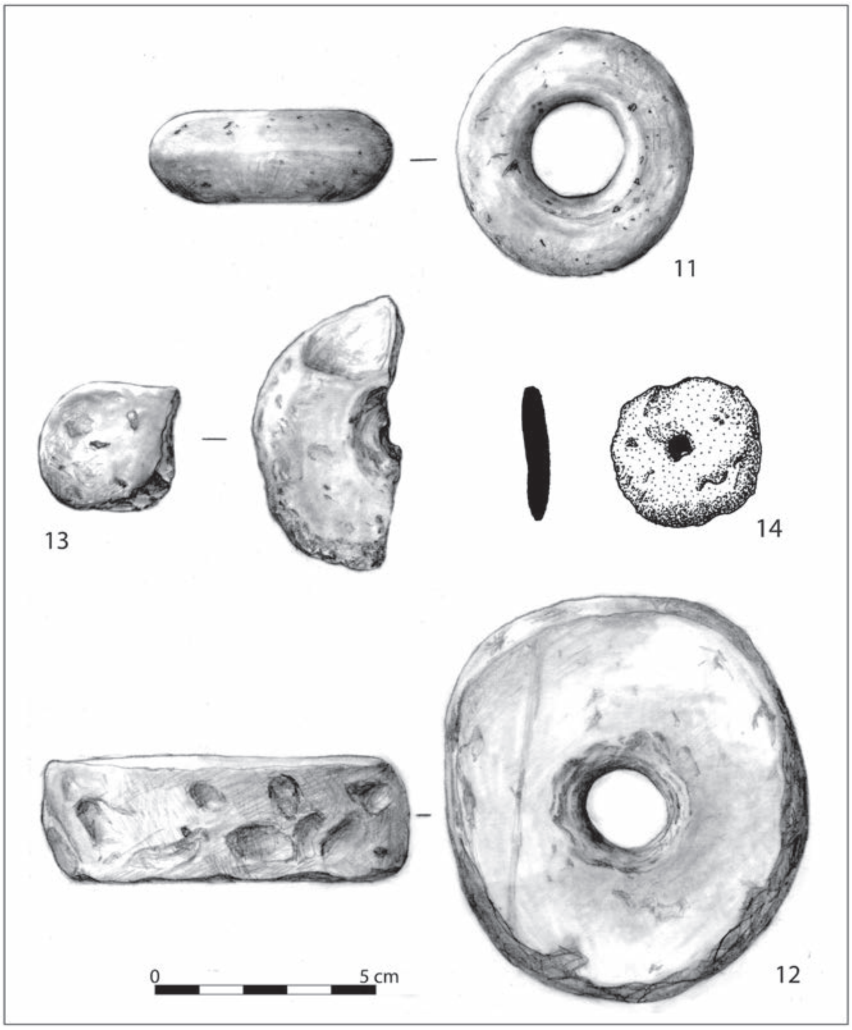


Figure 8.8-2. Ceramic loom-weights (Ceramic object cat. nos 11, 12, 13 and 14)

13). *Half of a loom-weight* (Fig. 8.8-2 and Plate 8.5)
Context: 5403. Triconch Room 19 (south wing). Phases 7–8, clay deposit, early to mid-5th century.
SF: none.
Dimensions: diameter: 62 mm; preserved width: 32 mm; thickness: 25 mm; diameter of central perforation: *c*. 10 mm.
Material: fine brick-red fabric with large lime inclusions.
Half of a circular loom weight, with a central perforation less than 10 mm in diameter; broken through the perforation. Smoothly polished on one face, rough on the other. Cut down from a tile.
Date: mid-5th century or earlier.

14). *Loom-weight* (Fig. 8.8-2)
Context: 3384. Merchant's House Room 39 (courtyard). Phase 8: mortar demolition spread, early to mid-6th century.
SF 2307.
Dimensions: diameter: 34 × 35 mm; thickness: 7–9 mm.
Material: ceramic.
A small sub-round loom-weight, with a central perforation. Smoothly polished on one face, rough on the other.
Date: mid-6th century or earlier.

15). *Loom-weight* (Fig. 8.8-3)
Context: 5006. Triconch Room 23 (south wing). Phase 8: collapse or demolition deposit, early to mid-6th century.
SF 2808.
Dimensions: diameter: 63 × 56 mm; thickness: 21–11 mm; diameter of central perforation: 6 mm.
Material: ceramic; light, almost white, regional ware incorporating mudstone.
A sub-round loom-weight, very irregular in form, with a central perforation. Cut down from a tile.
Date: mid-6th century or earlier.

16). *Loom-weight* (Fig. 8.8-3 and Plate 8.5)
Context: 5547. Triconch Room 16, (north portico). Pre-Phase 12: sand-silt layer, largely unexcavated, pre-10th century.
SF 3306.
Dimensions: diameter: 50–55 mm; thickness: 19–22 mm; diameter of central perforation: 6 mm.

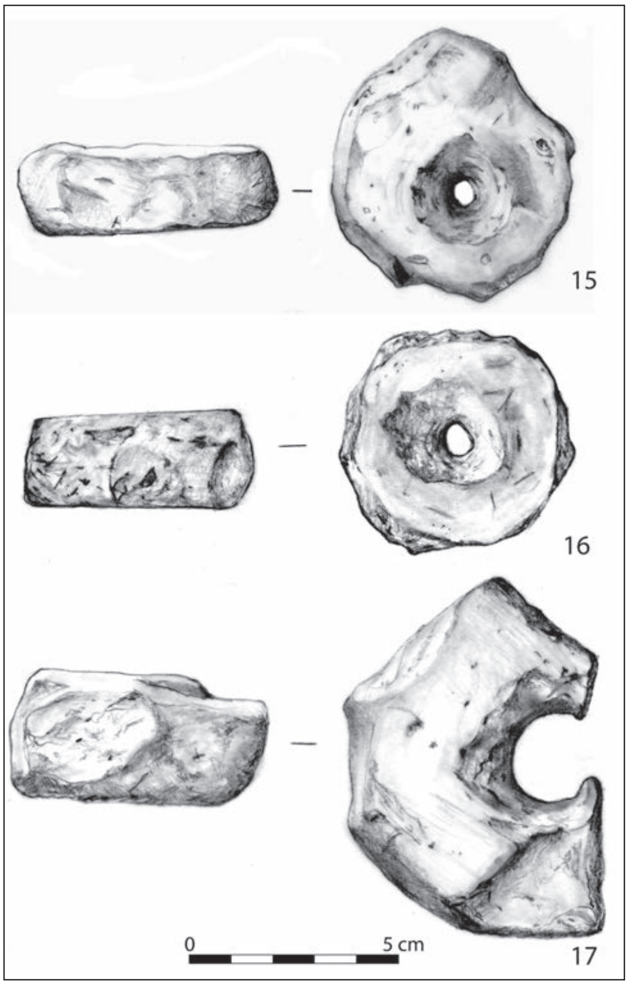


Figure 8.8-3. Ceramic loom-weights (Ceramic object cat. nos 15, 16 and 17)

Material: ceramic. Yellow buff regional fabric.
A sub-circular loom-weight with a central perforation. The edges are roughly cut; the upper and lower surfaces are smooth, suggesting that the weight has been cut from a tile. The sides of the central perforation have been roughly bevelled back on each face.
Date: probably 5th to early 7th century.

17). *Fragmentary large loom-weight* (Fig. 8.8-3 and Plate 8.5)
Context: 3193. Merchant's House (east of) Room 38. Phase 12 or earlier: demolition level, probably late antique.
SF 1966.
Dimensions: diameter: *c*. 90 mm; height: 30 mm; diameter of central perforation: 17 mm.
Material: ceramic. Brick-red fabric.
A large, apparently sub-octagonal ceramic loom weight. Both surfaces are flat and smooth. Deeply splay-bevelled around the central perforation on one side, rounded on the other. Broken across the perforation; about half the weight is preserved.
Date: uncertain; probably 5th to early 7th century.

18). *Pyramidal loom-weight* (Fig. 8.8-4 and Plate 8.5)
Context: 2053. Triconch Room 16. Phases 12–13: humic build-up in courtyard, 10th to 12th century.
SF 1137.
Dimensions: height: 97 mm; base: 50 × 50 mm; perforation: 5 mm.
Material: ceramic. Normal early Roman buff ware with fine oxide inclusions. Possibly a close regional fabric.
A slender pyramidal loom weight pierced near the top by

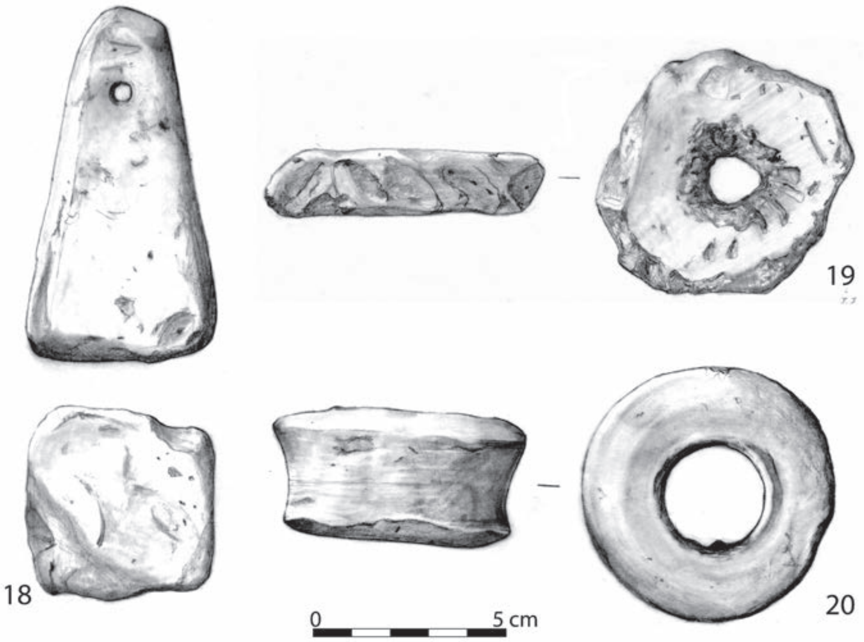


Figure 8.8-4. Ceramic loom-weights (Ceramic object cat. nos 18, 19 and possible loom-weight, Ceramic object cat. no. 20)

a round hole for suspension. Complete.
Date: 12th century or earlier. Seemingly a Roman type.

19). *Loom-weight* (Fig. 8.8-4 and Plate 8.5)
Context: 3083. Merchant's House Room 37. Phases 14–15: cultivation soil, 14th to 16th century.
SF 1933.
Dimensions: diameter: 78 × 67 mm; thickness: 15–20 mm.
Material: ceramic. Yellow buff fabric with some lime inclusions.
A roughly sub-circular loom-weight, with a central perforation, *c.* 13 mm in diameter. Cut down from a tile.
Date: uncertain; probably 5th to early 7th century.

WEIGHTS
20). *Weight* (Fig. 8.8-4 and Plate 8.5)
Context: 1676. Triconch Room 18. Phase 9: layer sealing industrial activity, mid- to late 6th century.
SF 952.
Dimensions: diameter: 68–69 mm; height: 34 mm; diameter of central perforation: 29 < 32 mm.
Material: ceramic; micaceous Diaporit-type fabric with some chert inclusions.
Well-fabricated and finished annular artefact; a weight of some kind – possibly a loom-weight? The circumference is elegantly waisted, with the upper rim slightly narrower than the lower rim. The central perforation tapers from top to bottom. Complete.
Date: 6th century or earlier.

*LAMPS_*
21). *Lamp with simple herring-bone ornament and an inscribed cross* (Plate 10.1)
Context: 5006 (2002). Triconch Room 23 (south wing). Phase 8: collapse or demolition deposit, early to mid-6th century
SF 2798.
Dimensions: length: 100 mm; max. width: 65 mm.
Material: ceramic.
A complete small hand-lamp, with a plain leaf-form central concave medallion framed by a band of running herring-bone pattern. The medallion is perforated with a central hole for filling surrounded by five smaller ventilation holes. The base is also leaf-form and is inscribed with a simple large cross with nail-head terminals.
Date: probably late 4th to early 5th century.

22). *Lamp with chi-rho* (Plate 8.8; Plate 10.1)
Context: 5302. Triconch Room 23 (south wing). Phase 5: clay deposit (collapsed wall?), AD 425–50.
SF: 2844.
Dimensions: length: 93 mm; max width: 65 mm.
Material: ceramic.
A complete small hand-lamp decorated on the display face with a vertical cruciform *chi-rho*, with A and ω under the cross-bar. The Greek letter rho/P of the monogram has been provided with an angled leg to indicate the Latin letter R. The central medallion and the neck leading to the wick-aperture are framed by a single continuous line of raised pearled stipples. Above the arms of the cross, on either side, is a circular ventilation hole.
Date: late 4th to early 5th century

23). *Lamp with cross* (Plate 8.8)
Context: 3105. Merchant's House Room 40. Phase 10: roof collapse, late 6th to early 7th century.
SF: none.
Dimensions: length: *c.* 120 mm; max preserved width: 51 mm.
Material: ceramic. Tunisian African red-slip ware.
A fragmentary small hand-lamp decorated on the display face with a large jewelled cross. The cross has splaying arms, with five roundels, one on each arm and one at the centre. The arms and the roundels are stippled, perhaps to represent pearling. The exterior frame is ornamented with somewhat irregular triangular and rhomboidal forms. Beneath the arms of the cross, on either side, was a circular ventilation hole, one of which is preserved.

This is a lamp of Hayes Type II B, manufactured in a north Tunisian centre and widely exported between the later 5th and the later 7th century (Hayes 1973, pl. XXIa; Hayes 1976, 122, pl. 27, G6, G7; Hayes 1980, 68, cat. 290-1, pl. 34). Lamps of this type with a similar design have been found in 7th-century contexts at the Crypta Balbi in Rome (Arena *et al*. 2001, cat. II.3.71-4).

The lamp would appear to have fallen from the upper chamber of the two-storey house, Room 40, a building of some quality and status, which had been erected in the third quarter of the 6th century.
Date: probably late 6th to early 7th century.

VESSELS
24). *Late Roman unguentarium* (Plate 8.8)
Context: 1127. Triconch Room 14 (north wing). Phase 8: midden or dump, *c.* AD 525–50.
SF: none.
Dimensions: preserved height: 140 mm; diameter of flask: 53 mm; diameter of rim: 25.5 mm.
Material: ceramic, Late Roman III, Ephesus.
A fragmentary *unguentarium*, of a type produced in large numbers and widely distributed throughout the eastern Mediterranean between the 5th and the mid-7th century (Hayes 1971, 245–7; Vroom 2014, 46–7). The neck and upper part of the body are preserved. This little vessel of characteristic shape may have been designed to hold holy oil from the shrine of St. John at Ephesus.
Date: 6th century, second quarter.

MISCELLANEOUS
25). Sphere
Context: 2074. Merchant's House Room 39/45 (courtyard/tower). Phases 14–15: cultivation soil (extends both sides of city wall), 14th to 16th century.
SF 1990.

Dimensions: diameter: 21 mm.
Material: ceramic. Fine regional buff ware with fine chert inclusions.
A cleanly shaped small, sub-spherical ball of fired clay.
Date: 16th century or earlier.

26). Fragment of clay tobacco pipe
Context: 3071. Merchant's House Room 42. Phase 15: rubble layer, 15th century or later.
SF: none.
Dimensions: length: 49 mm; diameter: 9 mm.
Material: light ochre clay, with a wash of white slip covering the outer surface.
Part of the stem of a clay tobacco pipe, broken at both ends, pierced by a 3 mm draw-hole.
Date: uncertain, early modern.

9. Worked ivory and bone

A modest and somewhat varied assemblage of worked bone and two artefacts in ivory was recovered from the various rooms of the Triconch *domus* and the adjoining area of the Merchant's House. These include not only a small range of domestic items such as pins, needles, spindle-whorls and fragments of combs but also some highly worked figural and decorative pieces, a larger number than might be expected from a sample of this size. The latter include a highly ornate little artefact surmounted by a cross, in turned ivory, possibly a gaming piece, (cat. 1), a little plaque carved with a hound leaping a guardian eye (cat. 3); a knife-handle delicately carved to resemble a forearm and hand holding a shell (cat. 5), and two ornate gaming pieces decorated with spiral fluting (cat. nos 12 and 13). Moreover, spindle-whorls in bone (cat. nos 6 and 20), carefully shaped and finished, are not widely found in excavated contexts; they are usually fashioned from stone or clay. The tally of objects is small and there are no obvious clusters or foci in the find-spot locations of the various pieces. The majority of these objects were found in stratified contexts dating from the 5th to 7th century, in each case deposited probably not much later than the age of their manufacture. Only one item came from an early Roman phase of the house – a fragment of a double-sided composite comb from a 3rd/4th century context, the foundation of a wall under Room 6, beside the axial apse of the later triconch *triclinium* (cat. 2). This small assemblage suggests that in the aftermath of the abandonment of the *domus* the two areas were places of more than subsistence presence, the occupants living cultivated lives of some elegance and refinement, with a concern for ornamental expression and symbolic reference in the material culture with which they surrounded themselves.

Individual pieces raise certain issues. The ornate cross-surmounted ivory piece (cat. 1) is one of a number of material indices referencing the Christian culture of the occupants of these buildings in the later 4th, 5th and 6th centuries. These include the crosses in the late 4th-century Phase 4 mosaic pavement of the peristyle (Mitchell 2011a, 275), the *chi-rho* monograms of open-work stone grills of the Phase 5 triconch *triclinium* (Stone cat. 37; see Bowden *et al.* 2011c, 41, figs 2.54–5), a little lead open-work pendant featuring a haloed cross from an early 5th-century context in Room 29 of the *domus* (Lead cat. 1) and a small 6th-century buckle with a plate in the form of a cross from the Merchant's House (Copper cat. 39).

The plaque with the hound leaping over a large eye is one example of an extended range of amuletic imagery in various media associated with the *domus* and the Merchant's House which came to light during excavation. This included pendants, rings and buckles as well as the motifs incorporated into window grills and floor mosaics (Mitchell 2007 and see here under Copper, cat. nos 11–16, and Lead, cat. 1).

The two composite domical counters decorated with spiral fluting that were found together in a mid-5th-century context in Room 22 (cat. nos 11 and 12), in the southern range of the *domus*, are particularly splendid and elaborate gaming pieces from the period. They belong to a general type which is found across the Mediterranean, in Rome, Carthage and Constantinople. They find a more or less exact counterpart in a spirally fluted piece, probably from the second half of the 5th century, from excavations on the northeast slope of the Palatine in Rome (St. Clair 203, no. 594, 111, 113, fig. 45d, pls 55–6). It is possible that these pieces from Butrint are residues from the late 4th/early 5th-century phases of the Triconch *domus* but perhaps more likely that they are from the following period, when the mansion no longer functioned as one unified habitation. They may indicate that although the various rooms and spaces of the palace were now being used in very different ways from before, the occupants still adhered to some of the material indices of status that had characterised the complex in its earlier, fully functioning grandeur. A simpler, smaller domical artefact may also be a gaming piece (cat. 19).

The butterfly-shaped mount with incised linear embellishment, from a mid/late 6th-century context in the courtyard of the peristyle, is of uncertain identity and function (cat. 15). However, if it is a local imitation in bone of a type of belt-mount, fashioned from copper or iron, which had been in fashion on the Middle Danube (see catalogue), it would be a fascinating instance of the migration of dress fashion and its local adoption and transformation.

There is a notable absence of evidence for the working of bone or ivory over the area of the Triconch and Merchant's House – just one rectangular plaque from the abandonment of the 6th-century two-storey structure Room 40, adjacent to the city wall on the western side of the Merchant's House (cat. 16; Bowden *et al.* 2011e, 193–200), and a sub-rectangular plaque cut from antler from a similarly dated context, around AD 600, from the final phase of Room 29, by the old late 4th-century entrance to the peristyle *domus* (cat. 17; Bowden *et al.* 2011d, 105–9). The items

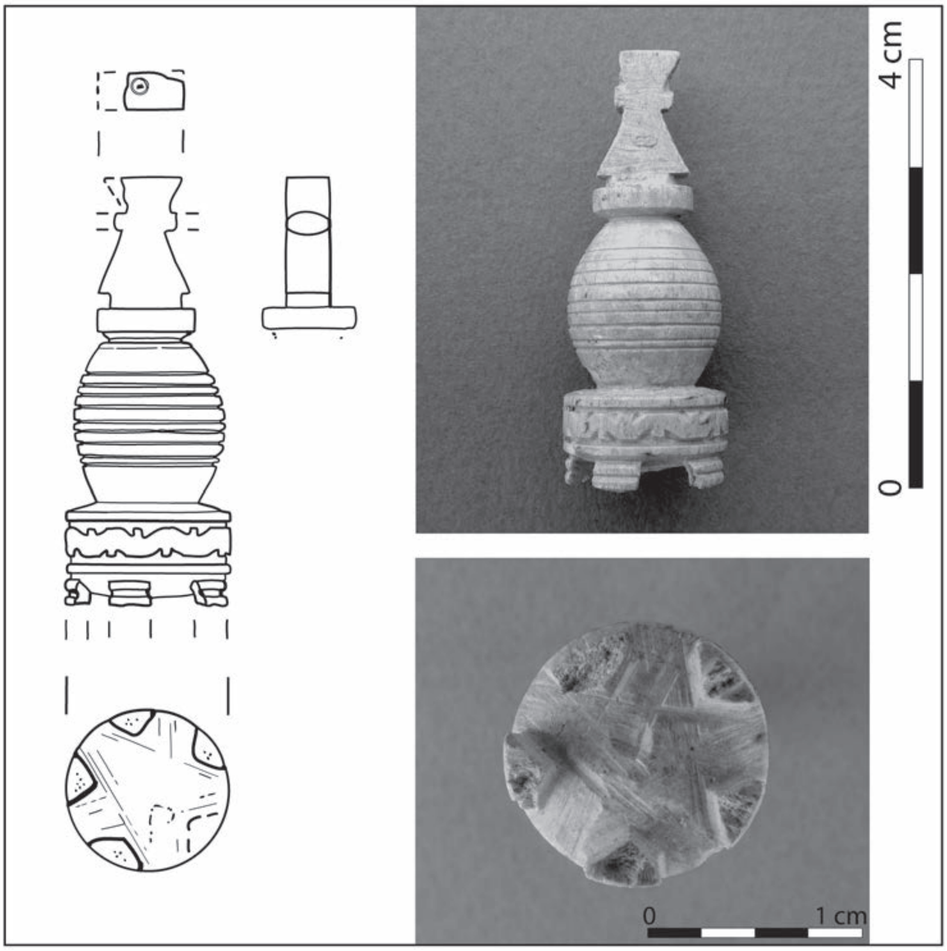


Figure 8.9-1. Ivory ornately turned artefact with cross terminal (Ivory and bone cat. no. 1)

used and deposited in the area of the Triconch must have been made in another part of the settlement or have been imported from elsewhere.

IVORY

1). *Ornately turned artefact with cross terminal* (Fig. 8.9-1 and Plate 8.9)

Context: 4018. Room 37. Phase 6: occupation deposit, AD 460–75.

SF 2447.

Dimensions: height: 40 mm; max diameter: 15 mm.

Material: probably ivory.

An elegantly turned and carved piece, consisting of an ovoid body, supported by a cylindrical base and surmounted by a cross. The body is decorated with a band of nine close-set circling striations. This rises from a low drum ornamented with a simplified and abstracted plant trail framed by narrow bands cut in low relief. The drum stands on five small legs, with simply profiled outer faces. One leg is missing. The interior surface between the legs is roughly finished. The upper terminal consists of a collar from which rises a cross with broad triangular stem, short straight lateral arms and expanding upper arm. The interstices of the plant trail on the base were filled with a paste, now white. Its original colour is uncertain. The surface here is burnished where preserved. On one side of the cross there are possible traces of red pigment. The body and base were turned on a lathe and the pivot-points are still clearly visible at top and bottom.

The piece was found in an occupation deposit which can be dated from associated ceramics to AD 460–75. This related to the final phase of Room 37 and was sealed by collapse of the roof of the upper floor and roof of the building. Contemporary deposits in this room contained other high-status artefacts, including fragments of a glass dish engraved with a frontal figure beneath an arcade (context 4056; Chapter 9 Decorated glass cat. 13) and 15 4th- to 5th-century coins. A quantity of fragments of wall veneer in Carystian green, *cipollino*, marble was also present in this space in a later, 6th-century, demolition context. These pieces may have been used as rough flooring for the ground-floor room but it is also possible that they fell from a first-storey where they had revetted the walls of the well-appointed *piano nobile* chamber of an elite two-storeyed house, the source of the artefacts found in the space below (for the two possibilities see Bowden *et al.* 2011e, 168–70 and Bowden and Mitchell 2007, 471).

The function of this object is uncertain. Possibly it is a gaming-piece from a deluxe set in the possession of a

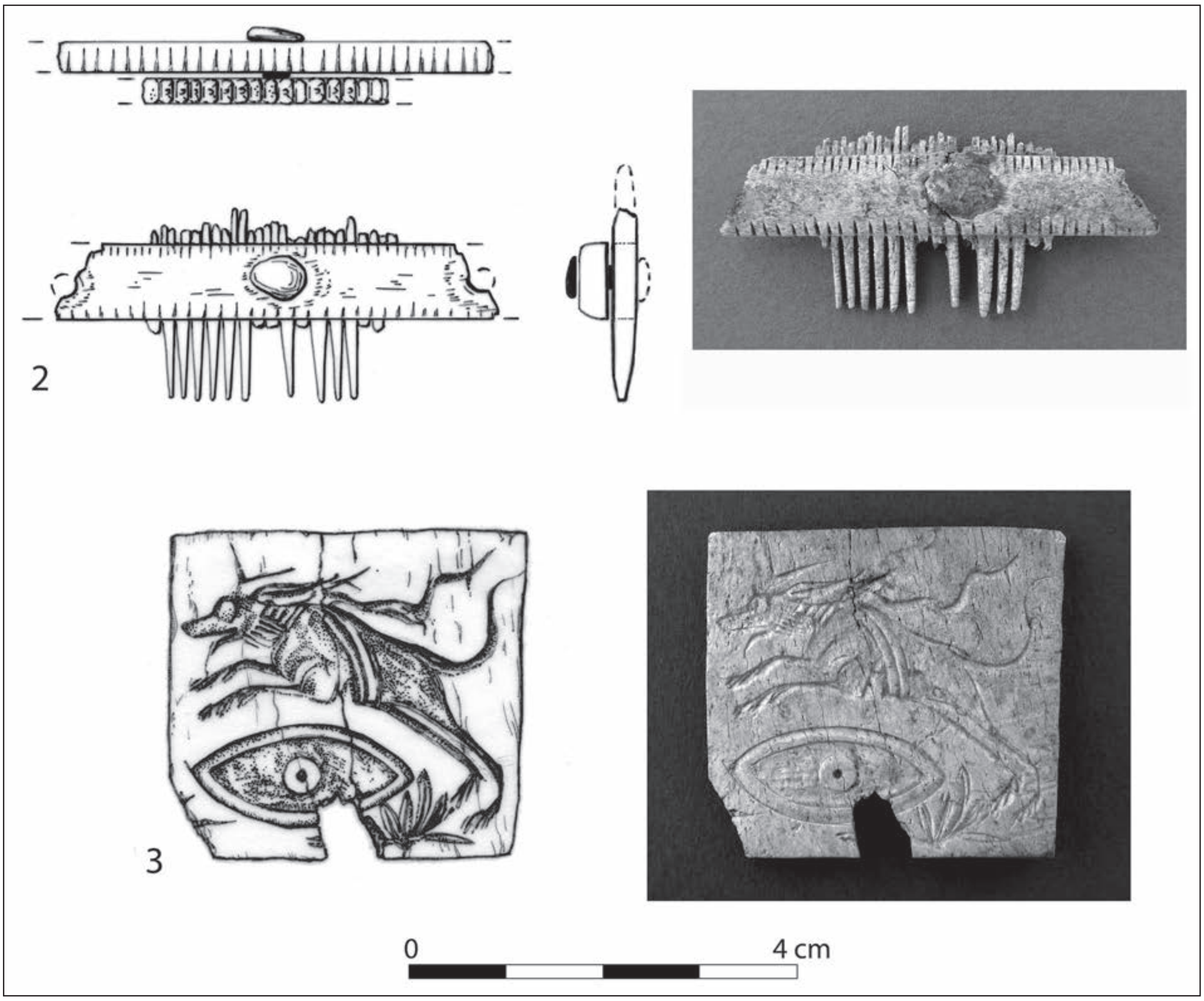


Figure 8.9-2. Bone comb fragment (Ivory and bone cat. no. 2) and bone plaque (Ivory and bone cat. no. 3)

member of the social elite in the Christianised late-antique city.
Date: probably mid-5th century.

BONE
2). *Fragment of a composite double-sided comb* (Fig. 8.9-2)
Context: 1008. Room 6. Phase 2: foundation of possible *pisé* wall, 3rd to 4th century.
SF 67.
Dimensions: length: 45 mm; max height: 18 mm; max. width: 6 mm.
Material: bone.
Fragment from the centre of a composite comb. Preserved are one horn tooth-plate with some well-preserved wide-gauge teeth on one side and the stumps of fine-gauge teeth on the other side, and part of one longitudinal connecting plate, secured to the tooth-plate by an iron rivet. The comb is not decorated. For combs of this general type, see Bíró 1994, 36-8, pls XXXVII–XL; also Ambrosiani 1981.
Date: 3rd century?
Bibliography: Guest *et al.* 2004, 300, no. 26.

3). *Plaque with hunting dog leaping over eye* (Fig. 8.9-2 and Plate 8.10)
Context: 3042. Room 16. Phase 3: rubble make-up layer on west side of east portico of peristyle cut by wall of triconch *triclinium*, early 5th century.
SF 2001.
Dimensions: height: 36 mm; width: 39 mm; thickness: 2.5 mm.
Material: bone.
A bone plaque, carved in spirited intaglio with a magnificent hunting dog with trailing leash leaping over a large eye. One corner of the plaque is missing and there is a bite out of the lower border which encroaches on the imagery. The cancellous structure of the interior of the bone is preserved on the rear face of the plaque. The plaque was found in an early 5th-century level, associated with the remodelling of the peristyle and the construction of the triconch *triclinium* off the east walk, in the first quarter of the 5th century. The idiom in which the plaque is carved, a deft impressionistic style, using sparse, often disjointed cuts and incisions to suggest movement and life, is typical for the later 4th and early 5th century, especially in engraved work on

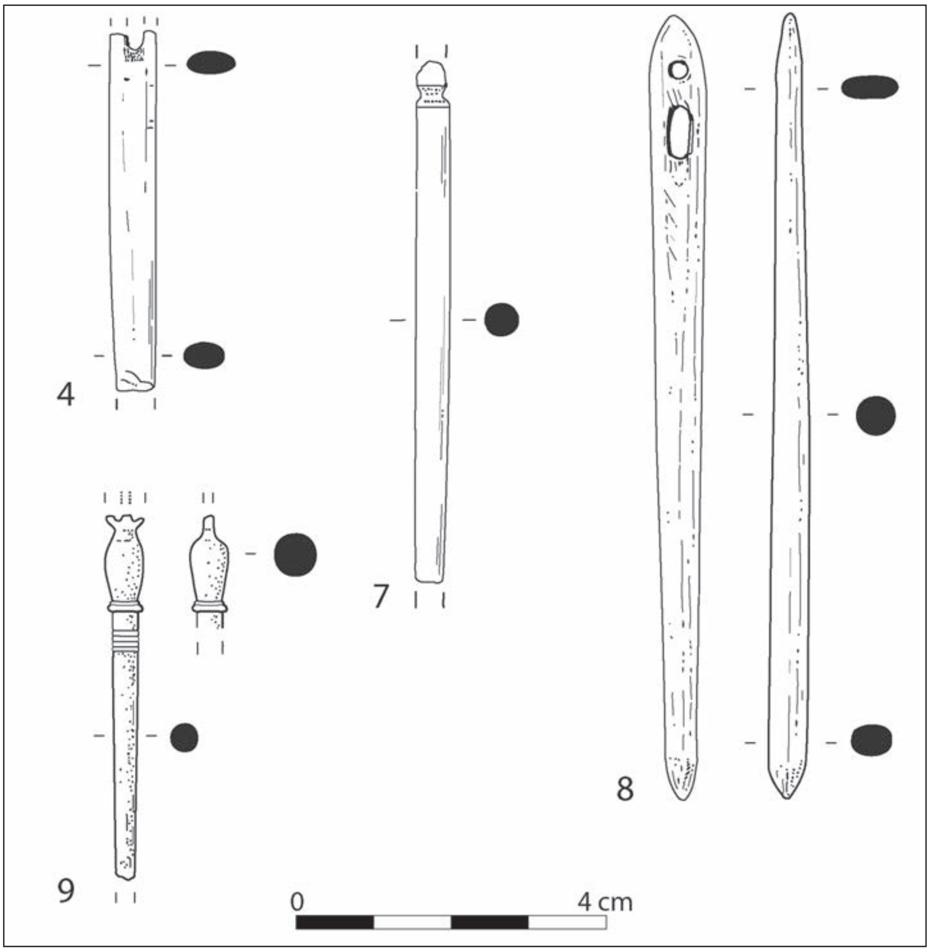


Figure 8.9-3. Oval-sectioned needle (Ivory and bone cat. no. 4), pin with shaped terminal (Ivory and bone cat. no. 7), large needle (Ivory and bone cat. no. 8) and pin with an elaborate terminal (Ivory and bone cat. no. 9)

metal surfaces, gold, silver and copper (Kitzinger 1940, frontispiece; Weitzmann 1979, cat. 77, 87–8; Buckton 1983–84).

The original use and setting of the plaque is uncertain. It would appear to have been designed to function with some kind of amuletic, salvific agency, possibly attached to an ornate box or to an article of domestic furniture or possibly to be worn about the person.

The hunting dog was a creature with strong symbolic associations, much favoured in the late-Roman world, often deployed as an image to symbolise status, power and control of the natural environment. This is the hound which hunts down its quarry on mosaics, on silver, on glass and terracotta domestic vessels, represented either accompanying its master on horseback, or else hunting alone, shadowing in image the Lord of the house as he receives his clients and friends at home, or invites them to eat with him off his finest table-ware (Toynbee 1962: pls 161, 178–9; Weitzmann 1979, 63–4, cat. nos 74, 77, 79, 80; Henig 1995, figs 87, 96, 85; Ling 1998, figs 65, 93). The eye (the much-suffering eye) was a device widely deployed in late antiquity to provide protection against the effects of envy and threatening malicious spirits (Bonner 1950, 97–100; Engemann 1975, 24–40, 25 n. 13 for the principal previous literature; Dunbabin and Dickie 1983; Trilling 1995, 70). This was the eye which engaged with the envious, covetous, harmful gaze, designed to catch and hold any intruding hostile force which might seek to upset the physical security or the spiritual well-being of the object or person bearing the device. The incorporation of this motif on amulets and other artefacts of everyday use was widespread in the period. In the Triconch *domus* at Butrint, the eye also features in the mosaic pavement of the west walk of the Phase 4 peristyle, immediately in front of the western entrance (Mitchell 2007, 281–3, figs 5–7a; Mitchell, 2011, 261–2, 274, figs 7:61–66, pls 33, 34, 44–8), and on a 6th-century copper amulet (this volume Copper. cat. 15. Mitchell 2007, 289–91, fig. 10a). Similarly, the vigorous plant by the rear feet of the hound is the plant of life, signifying renewal, salvation and peace. The three motifs are combined here to assure the well-being, health and good fortune of the owner.

Date: *c*. AD 400 or slightly earlier

Bibliography: Mitchell 2007, 294–6, fig. 11d; Mitchell 2012.

4). *Oval-sectioned needle* (Fig. 8.9-3)
Context: 3042. Room 16. Phase 4: compacted clay silt and rubble make-up (construction?) layer on west side of east portico of peristyle; early 5th century.
SF 1958.
Dimensions: length: 48 mm; shaft: *c*. 7–5 mm.
Material: bone.
Sub-oval-sectioned needle, slightly flattened at one end, where it is pierced by a 3 mm hole. Broken at both ends.
Date: *c*. AD 400 to early 5th century.

5). *Handle in the form of a forearm and hand holding shell* (Fig. 8.9-4 and Plate 8.11)
Context: 3361 (2001). Triconch Room 26. Phase 5: furnace deposit, early 5th century.
SF 2154.
Dimensions: 119 × 23 × 16 mm.
Material: bone.
An elaborately conceived handle carved in the shape of a lower forearm and right hand holding a scallop shell. The arm terminates in three narrow collars, of decreasing diameter, and a short sub-circular shaft which issues from a ring of four leaves with serrated arched profiles; these in turn rise from a deep profiled collar. The remains of a rusting iron tang are preserved in the base of the shaft.

This was designed as a handle for a knife, mirror or other domestic implement associated with the toilet of a lady. The hand holding the scallop shell is probably a reference to Venus, born from the sea and sometimes depicted as carried to land on a shell, part of the standard repertoire of imagery deployed on luxury items associated with elite female toilet in the late Roman world.

An exact parallel for this handle is not easy to locate. However, bone knife-handles with terminals carved to the form of a hand, sometimes grasping an object, a garland, or two hands interlocked are not uncommon from the late Roman Mediterranean (Marangou 1976, 132, cat. 275, 276, pl. 66). A general context is to be found in bone hairpins terminating in hands (Wulff 1909, 124, pl. XXI, 458–61; Johns 1996).
Date: late Roman, probably late 4th to early 5th century.

6). *Domical spindle-whorl* (Fig. 8.9-5 and see Plate 8.4)
Context: 5097. Room 22. Phase 5: levelling layer, mid-5th century?
SF 2616.
Dimensions: height: 20 mm; diameter: 28.5 mm; diameter of perforation: 6 mm.
Material: bone, pale brown ochre fabric.
A smoothly finished spindle-whorl with steep domical profile, pieced by a 6 mm shaft.
Bone domical spindle-whorls of related types have been found in 7th-century contexts at the Crypta Balbi in Rome (Ricci 1997, 265–8, fig. 12. 5–6; Arena *et al*. 2001, 398; cat. II.4. 739–40).
Date: probably first half of 5th century?

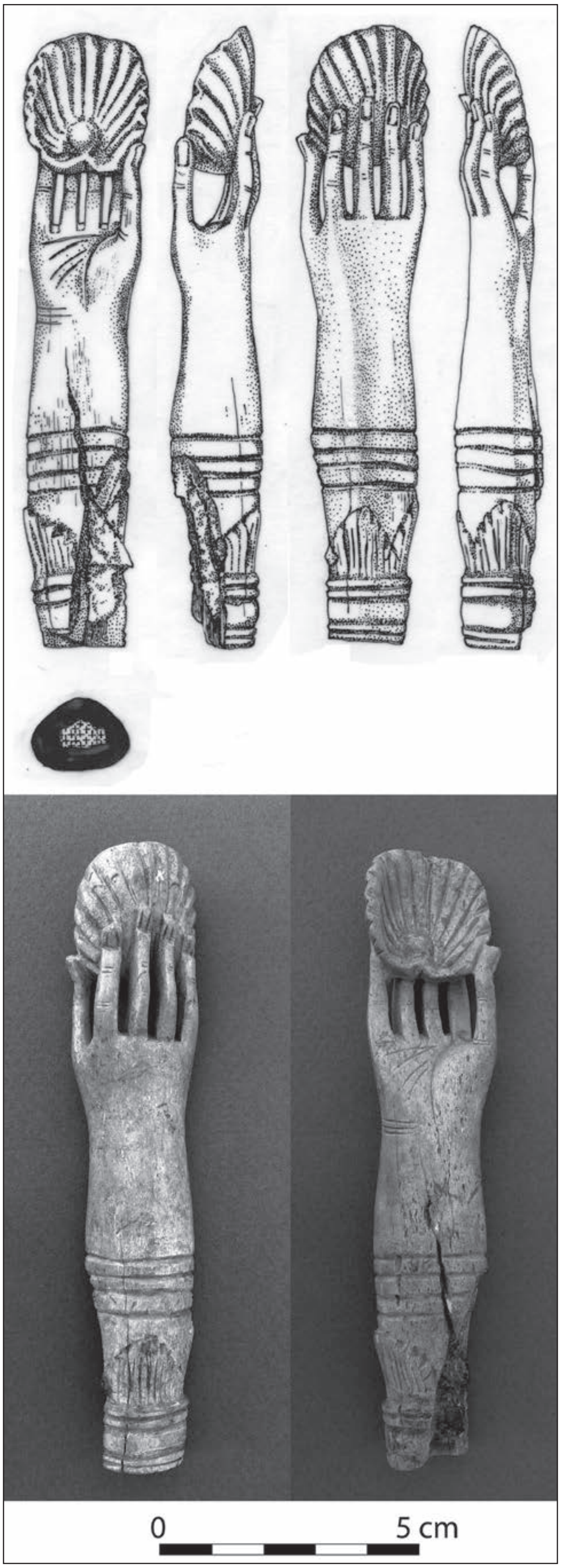


Figure 8.9-4. Bone handle in the form of a forearm and hand holding a shell (Ivory and bone cat. no. 5)

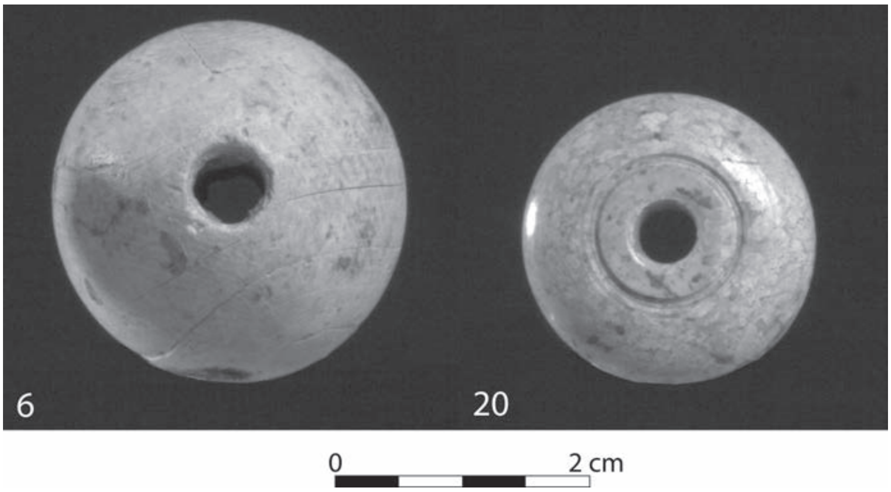


Figure 8.9-5. Bone spindle-whorls (Ivory and bone cat. nos 6 and 20)

7). *Pin with shaped terminal* (Fig. 8.9-3)
Context: 3303. Trial trench against east wall of Room 38. Phases 5–6: burnt clay deposit, 5th century?
SF 2132.
Dimensions: length: 67 mm; diameter: *c*. 4–3.5 mm.
Material: bone.
Carefully formed round-sectioned pin with a turned terminal with little waisted knob.
Date: 5th century?

8). *Needle* (Fig. 8.9-3)
Context: 5572. Room 31. Phase 6: silt abandonment or occupation deposit, 5th century.
SF 3302.
Dimensions: length: 0.101 m; diameter: 5 > 4 mm tapering to a point; long perforation: 7 × 3 mm; diameter of round perforation: 2.5 mm.
Material: bone.
Substantial needle, with slightly tapering shaft and pointed at end. The upper end somewhat flattened and with two perforations: a small round hole above, and below a long opening with rounded ends and with short grooves running down from the lower ends of the openings on both sides.
Date: 5th century.

9). *Pin with elaborate terminal* (Fig. 8.9-3)
Context: 5494. Room 27. Phase 6: tip layer deriving from domestic occupation, mid- to late 5th century
SF 3310.
Dimensions: length: 47 mm; diameter: *c*. 3–5 mm.
Material: bone.
Carefully formed round-sectioned pin with tapering shaft terminating in a small projecting collar, an elongated bulbous terminal and a thin perforated crest of which three small stumps are preserved. Damaged at upper end and lower end of shaft broken off.
Date: mid- to late 5th century.

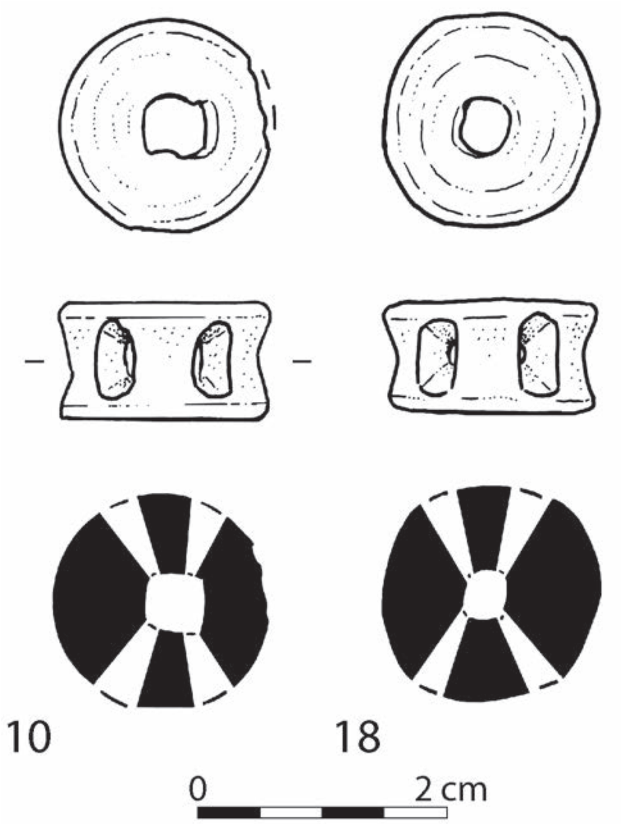
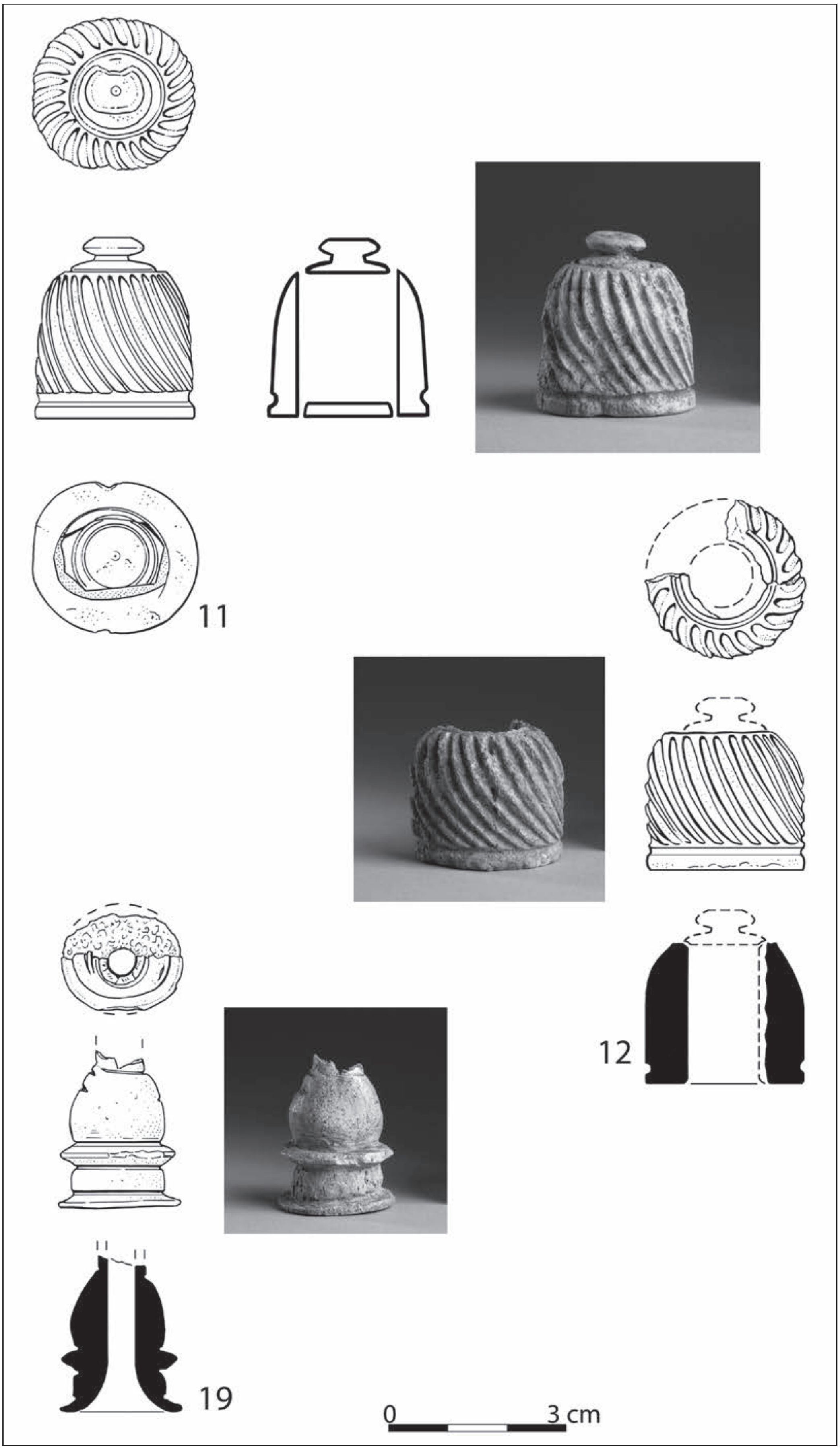


Figure 8.9-6. Fish vertebrae, possibly used as beads (Ivory and bone cat. nos 10 and 18)

10). *Fish vertebra perforated possibly for use as bead* (Fig. 8.9-6)
Context: 1449. Triconch Room 16 (courtyard, western portico). Phase 7: tile dump, AD 450–500.
SF 3014.
Dimensions: height: 9–10 mm; diameter: 18 mm
Material: vertebra of a cartilaginous-skeletoned fish.
Vertebra of a fish with a 5 × 4 mm mushroom-sectioned central perforation and four 6 × 4 mm natural sub-rectangular rim perforations. Signs of wear around the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12
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3 cm

Figure 8.9-7. Bone domical gaming pieces (Ivory and bone cat. nos 11, 12 and 19)

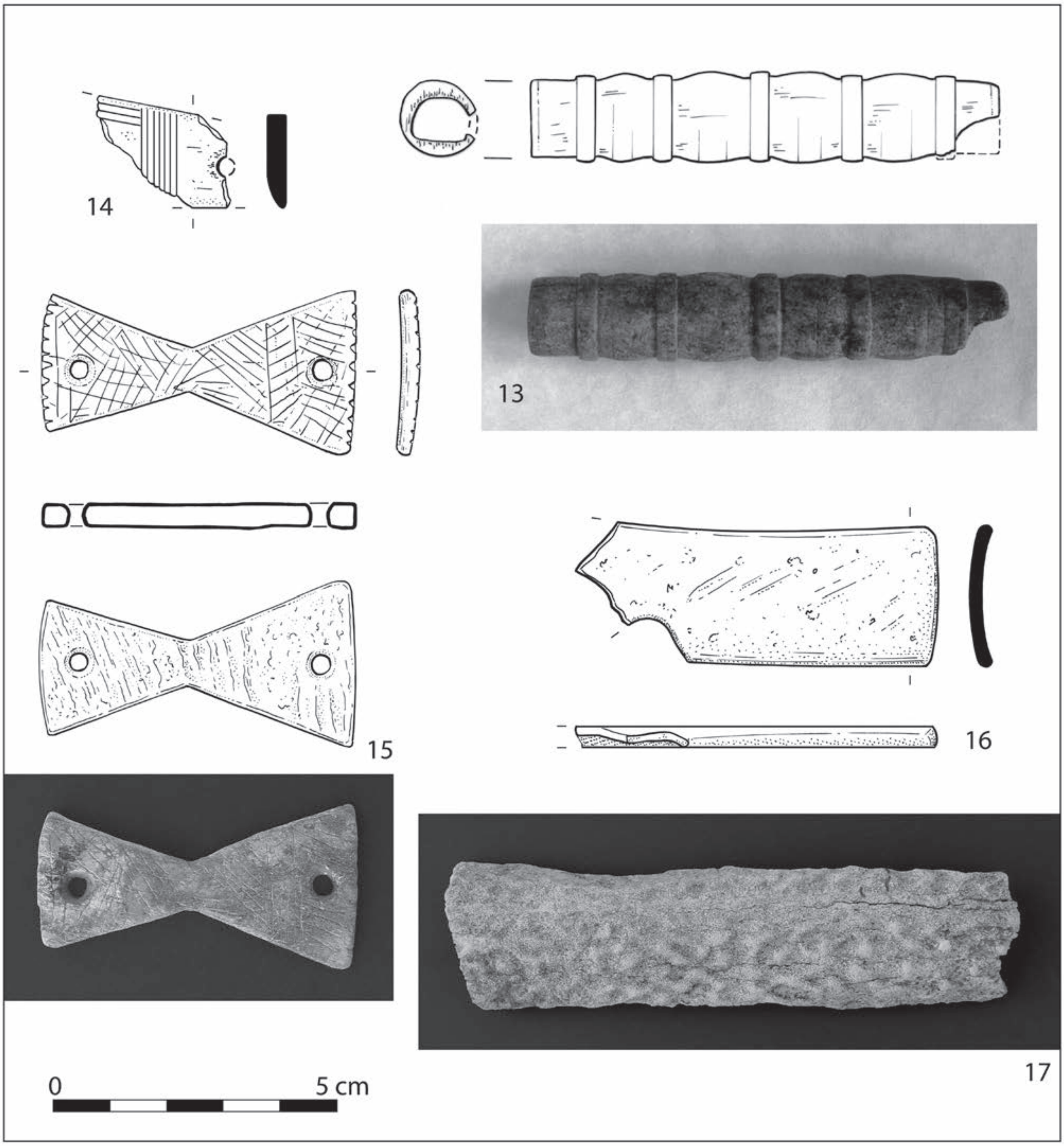

Figure 8.9-8. Bone artefacts (Ivory and bone cat. nos 13, 14, 15, 16 and 17)

central perforation and abrasion round the rims of the vertebra. The central perforation appears to have been widened and shaped. Possibly adapted for use as a bead on a necklace. See cat. 18.
Date: mid-5th century?

11). *Domical gaming piece* (Fig. 8.9-7 and Plate 8.12)
Context: 5014. Triconch Room 23. Phase 7: tile dump or roof collapse, early 6th century.
SF 2829.
Dimensions: height: 30 mm; diameter at base: 27 mm.
Material: bone.
A squat sub-domical gaming piece ornamented with spiralling strigillated fluting and terminating in a waisted button at the apex. The spiral fluting is framed at the top by a circle incised on the shoulder of the piece, and at the bottom by a narrow plain collar. The bottom of the piece has been smoothly finished and incised with three concentric circles. The piece has been fashioned from the long-bone of a mammal, the central hollow filled with a

plug of bone from which the terminal button is carved. After assembly, the piece was turned on a lathe; the pivot-points are clearly visible at top and bottom. The lower face is polished smooth from use.

Bone gaming-pieces of the same general type have been found in excavations on the north-eastern slope of the Palatine Hill in Rome, one in a context dated to the second half of the 5th century (St. Clair 1996, 370, fig. 8; St. Clair 2003, 111, 113, nos 592–6, fig. 45, pls 55–6). One of these, no. 594, is cut with spiral fluting in a very similar manner to the pieces from Butrint. Other related domed pieces have been found at the Crypta Balbi, in Rome, in a 7th-century context (Ricci 1997, 264–5, fig. 10, 20), at Carthage, in one case in an early 6th century context (Henig 1984, 190–2, nos 77–82, figs 63–4) and in disturbed late contexts at Saraçhane in Istanbul (Gill 1986, 260–1, nos 506–13, fig. N). For pieces of this type, see Biró 1994, 62–3, fig. 40.
Date: 5th to early 6th century.

12). Two joining fragments of a domical *gaming piece* (Fig. 8.9-7 and Plate 8.12)
Context: 5014. Room 23. Phase 7: tile dump or roof collapse, early 6th century.
SF 2828 and 2830.
a). Dimensions: height: 24 mm; width: 18 mm.
b). Dimensions: height: 24 mm; width: 28 mm.
Material: section of a long-bone of a mammal.
Two joining fragments of the body of a sub-domical, spirally fluted gaming piece, uniform with cat. 11.
Date: 5th to early 6th century.

13). *Handle* (Fig. 8.9-8)
Context: 1740. Room 18. Phase 8: mussel-shell deposit, mid-6th century
SF 879.
Dimensions: length: 83 mm; max diameter: 15 mm.
Material: bone.
A turned handle with four swelling reels, separated by slightly projecting collars, to form a bead-and-reel sequence. At the upper end the profile slopes in to a flat lip, at the other there is a short straight-sided sleeve. Both ends are preserved, although the upper end is damaged. The handle is hollow, the natural cavity of the bone, and is split open along its length, up one side. There are possible traces of ferric corrosion in the cavity at the damaged end. Solid bone bead-and-reel rods are preserved in the Coptic Museum in Cairo (Strzygowski 1904, 215, pl. XX, 8947) This may have been the handle of an iron knife.
Date: 5th to mid-6th century

14). *Fragment of a connecting-plate from a comb* (Fig. 8.9-8)
Context: 3477. Merchant's House Room 39 (courtyard) Phase 8: demolition deposit, early to mid-6th century.
SF 2567.
Dimensions: length: 23 mm; width: 14 mm; thickness: 3–5 mm
Material: bone.
The original edges are preserved on both sides but each end is irregularly broken; at one end the break runs across a 3.5 mm rivet-hole. The plate is gently convex on its upper surface and concave on its inner side and is decorated on the display-face with striated incisions, one band of seven lines crossing the plate at a slant, another of three lines running from this along one lateral contour of the plate.
Date: 5th to 6th century?

15). *Butterfly-shaped mount* (Fig. 8.9-8)
Context: 5362. Room 16. Phase 9: deposit of clay in courtyard of triconch, mid to late 6th century.
SF 3215.
Dimensions: 56 × 30 mm; thickness: 3.5 mm.
Material: bone.
A waisted butterfly-shaped fitting, lightly incised with parallel-angled intersecting striations on its display-face. One wing is somewhat smaller than the other. Each end is pierced by a 5 mm circular hole. The rear face is roughly finished.
The function is uncertain. Possibly a belt-fitting, set vertically, imitating a type in vogue in central Europe in the 5th century, in bone rather than copper (see Copper, cat. 46).
Date: 6th century or earlier.

16). *Rectangular plaque* (Fig. 8.9-8)
Context: 4001. Room 43. Phase 10: material dumped in abandoned building, possibly redeposited, late 6th to 7th century.
SF: none.
Dimensions: length: 62 mm; width: 23 mm; thickness: 2 mm.
Material: bone.
A sub-rectangular plaque, slightly bowed, with somewhat curving long sides, smoothly finished on both faces and on the preserved edges, broken at one end.
Date: 5th to 6th century or earlier.

17). *Fragment of worked antler* (Fig. 8.9-8)
Context: 5331. Room 29. Phase 10: make-up level for mortar surface, late 6th to 7th century.
SF 3328.
Dimensions: length: 100 mm; width: 23–25 mm; thickness: 9 mm.
Material: antler, possibly from red deer.
Long sub-rectangular panel cut from an antler. Roughly levelled on both faces.
Date: 6th to 7th century.

18). *Fish vertebra perforated possibly for use as bead* (Fig. 8.9-6)
Context: 5301 (2003). Room 16. Phases 12–13: rubble and mortar, early 10th to 12th century
SF: none.

Dimensions: height: 7–10 mm; diameter: 18 mm.
Material: vertebra of a cartilaginous-skeletoned fish.
Vertebra of a fish with a 5 × 5 mm sub-square-sectioned central perforation and four 6 × 4 mm natural sub-rectangular rim perforations. The sides of the central perforation show signs of wear and there is abrasion round the rims of the vertebra. The central perforation appears to have been widened and shaped. Possibly adapted for use as a bead on a necklace. Davidson has suggested that somewhat larger vertebrae of fish found at Corinth (diameter: 25 mm) may have been used as playing counters (Davidson 1952, 217, 220, no. 1707, pl. 99). See cat. 10.
Date: 5th century? Residual find in later medieval layer?

19). *Domical artefact – gaming piece?* (Fig. 8.9-7 and Plate 8.12)
Context: 5322. Room 16. Phases 12–13: dumped soils or garden soils, 10th to 12th century.
SF 3034.
Dimensions: height: 27 mm; max diameter: 20 mm
Material: possibly from the terminal of a long-bone (distal humerus?) of a mammal.
A domical artefact profiled at the lower end as a reel with two projecting flanges and with a glandular terminal at the other, the tip broken off. One side is flattened-off to reveal the porous structure of the bone. At the base the interior cavity is worked into a curved conical shaft penetrating the piece from bottom to top. The function is uncertain. Possibly a gaming piece.
Date: uncertain, pre-10th to 11th century; probably 5th–6th century.

20). *Flat spindle-whorl* (Fig. 8.9-5 and see Plate 8.4)
Context: 4199. Room 38. Phase 14b: mortar mixer, late 14th century.
SF 2685.
Dimensions: diameter: 24 mm; height 6 mm; diameter of perforation: 5 mm.
Material: bone, pale brown ochre fabric.
A smoothly finished flat spindle-whirl with coved profile, pierced by a 5 mm shaft. A 12.5 mm diameter circle is incised on the profiled face.
Bone flatish spindle-whorls of related types have been found at Corinth (Davidson 1952, 296, 299–302, cat. 2514–2578, pls 122–4), at Anemurium, Isauria, on the southern coast of Turkey (Russell 1982, 137, fig. 4.31), at Nessana in Palestine (Colt 1962, pl. 25, 10–11), in 7th-century contexts at the Crypta Balbi in Rome (Ricci 1997, 265–8, fig. 12.2–4; Arena *et al*. 2001, 345–6, cat. II.4. 216–17) and similar spindle-whorls in wood, in 6th- to 7th-century contexts at Nessana in Palestine (Colt, 1962, 58, pl. 25. 10–11). Examples from Egypt were preserved in the Coptic Museum in Cairo (Strzygowski 1904, 207–10, pl. XIX).
Date: uncertain (residual find in late medieval mortar mixer); probably 5th to 6th century.

Notes

1 Parallels are referenced in individual catalogue entries.

2 The remaining ceramic lamps will be discussed in full in the publication of the ceramics from the site.

9 The vessel glass from the Triconch Palace: a catalogue

Sarah Jennings, with additional contributions from William Bowden and Karen Stark

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Introduction

The vessel glass recovered from the Triconch ranged in date from early Roman through to the 16th century with most dating to the late Roman/early Byzantine period. A total of 3491 vessel fragments were recovered, and 1163 of these were attributable to a vessel form. Some 3064 sherds could be assigned to clearly dated contexts.[1]

Generally the vessel glass is extremely fragmentary and the sherd to vessel ratio (SVR) is very low, with most of the vessels represented by a single fragment. The fragments were recorded on pro forma sheets context by context, and the identifiable pieces attributable to a vessel form were given a code number linked to a form type series. As is usual with a fragmented assemblage of glass, many of the rim and base fragments were not directly attributable to a specific form and could have come from a variety of forms; these were given separate form code numbers. Method of manufacture – cast, blown, mould-blown – and types of decoration were noted. Quantification was by fragment count and estimated vessel equivalent (EVE); the diameter and percentage of all rim and base fragments were recorded when possible. The minimum number of vessels from each context was also estimated, giving a total of some 2288 vessels, of which 2112 could be assigned to dated contexts, but this was a much more subjective method of quantification due to the small size of many of the fragments and the low SVR. It was also difficult to identify vessels cross joining between deposits except in very few cases.

Catalogue entries for the drawn pieces are largely confined to the colour of the glass and its quality. A lot of the glass was heavily weathered when compared with the comparable glass from sites on the Vrina Plain, which was in much better condition with little weathering. This degree of weathering seems to be due solely to burial conditions and the semi-waterlogged soil conditions prevalent across much of the Triconch over the centuries. A small number of vessels, particularly beakers with blue blob decoration, were not weathered at all and this is noted in the catalogue entry.

The very fragmentary nature of the vessel glass and the fact that much of it is evidently residual in its context means that only a broad picture of the use of glass can be drawn. Only a few vessels are either distinctive or of noticeably high quality and although there is relatively little evidence for a glass-working industry in Butrint it is likely that most of the vessels would have been made in the immediate or near vicinity; this particularly applies to the bulk of the glass which dates to the late antique period when glass vessels were in common use and Butrint was certainly large enough to support its own glass-working industry. Contexts from Phase 11 and later (mid-7th century to 15th/16th century) produced far fewer fragments and a higher percentage of these are likely to have been imported into Butrint.

Less than half of the glass could be identified by vessel form. Of these, drinking vessels such as cups, beakers, and goblets represented by far the largest proportion (nearly 75% of the whole). Bowls, flasks, bottles, jars, jugs, lamps, and *unguentaria* were also present but in significantly lower numbers. These trends seem to be concurrent with the glass forms identified in the Western Defences assemblage, but in contrast to glass excavated on the Vrina Plain where flasks and bottles were more plentiful (Jennings 2010, 228; Stark 2019). Waste and scrap glass constituted only about 4% of the assemblage. Four main colours were identified in the Triconch glass assemblage: about one quarter of the total glass is green, one quarter colourless, one quarter yellow, and about one-eighth blue/green. Several other colours were present, but were proportionally negligible.

Decorated glass is considerably more common in the

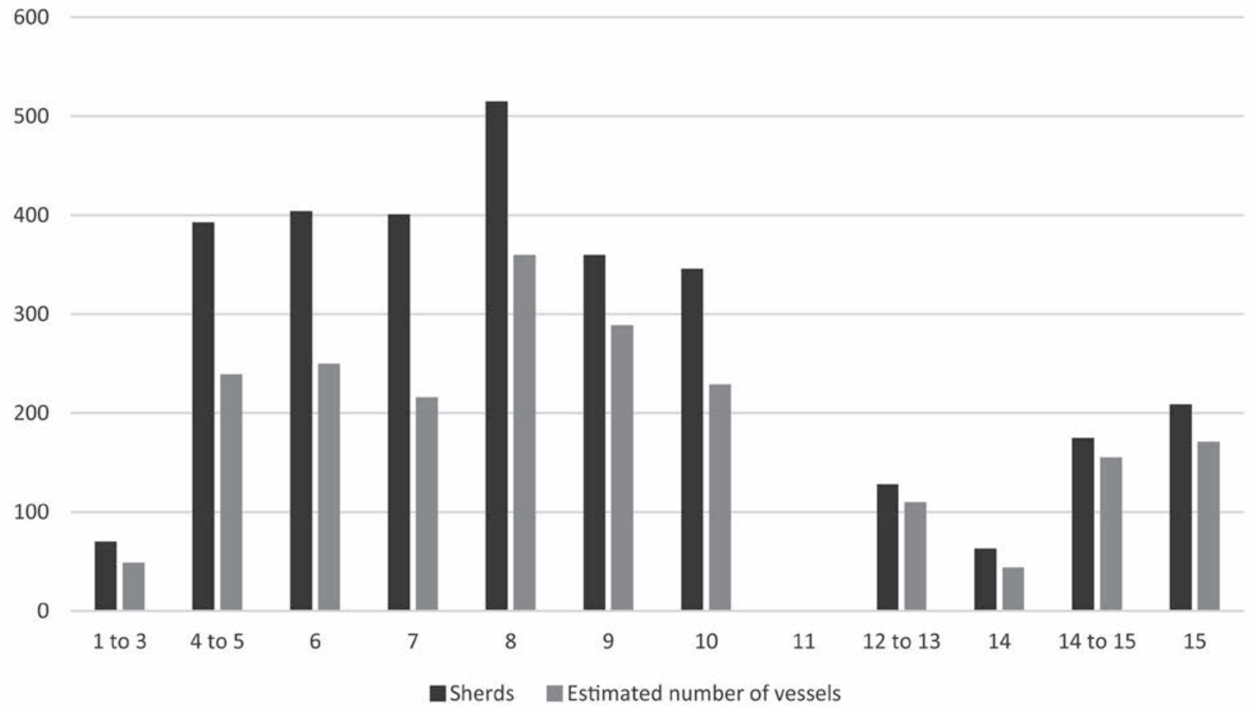


Figure 9.1. The vessel glass as deposited by phase

Triconch assemblage than in those from the Vrina Plain and the Western Defences. Over 10% of the glass contained some type of decoration. Abrasion bands and glass trails were the most common type of decoration, but cut, engraved, and ribbed decoration were also present. These trends seem to indicate that the Triconch area glass was of superior quality to both of these areas. This is not surprising with regard to the Western Defences assemblage, which was most likely collected for use as cullet (Jennings and Stark 2013).

The glass as deposited *(WB)*

The nature of deposition and taphonomy at the Triconch Palace meant that no clear primary occupation deposits were recovered. Judging from ceramic joins across the site there was extensive post-depositional disturbance throughout the area and as a result none of the glass can be related to phases or areas with absolute confidence. Equally, the variation in the levels of excavation in different parts of the site means that quantification of the glass by room and phase can only ever be impressionistic. Nonetheless, some interesting trends emerge from the data.

First, it is clear that the material predominantly belongs to the late antique period. Some 81% of the glass that could be assigned to phase dated to prior to the early 7th century, while much of the remainder in later phases is likely to be residual (Fig. 9.1). Glass use is actually probably most intensive during the 5th to early 6th century (Phases 4–7), when quantities of glass are largest in comparison with the size of the deposits excavated although this remains impressionistic rather than genuinely quantifiable. Equally the sherd to vessel ratio (SVR) is markedly higher in Phases 4–7, suggesting less disturbance of contexts in this phases and a lower proportion of residual glass sherds in the assemblage. Deposition of glass peaks in Phase 8 (AD 525–50) and thereafter decreases slightly in the second half of the 6th century. Although it is clear that glass vessels remain common in deposits through the 6th century, the low SVR suggests a greater level of residual glass in these deposits. This trend continues into Phases 12–15 (10th to 15th century), where the overall quantity of glass is much lower and the SVR is almost 1:1, indicating that the majority of the glass in these contexts is residual late antique material. As a caveat, however, we should note that in some areas, notably the courtyard (Room 16) and the Merchant's House, much of the excavation of these thick humic horizons was done with heavy tools and recovery of glass is likely to be lower.

The spatial distribution of glass is also intriguing (Fig. 9.2). Absolute quantities by room mean little as they simply reflect the size of the excavated area, with the greatest quantities coming from the courtyard (Room 16) and the long gallery (Room 18). However, when the distribution is broken down by both room and phase (Plate 9.1), some clear trends are visible, reflecting different moments in the life of the site. In particular the concentration of glass in the south-west of the Triconch (Rooms 22, 23, 24, 26) in Phases 4–7 (the 5th to early 6th century) should be noted. This relates to evidence of possible glass-working in Room 26 in Phase 5, also perhaps associated with some domestic occupation (Bowden *et al.* 2011c, 62). Here, fragments of fine walled glass lamps were recovered, which may have been in use or alternatively were present as cullet.

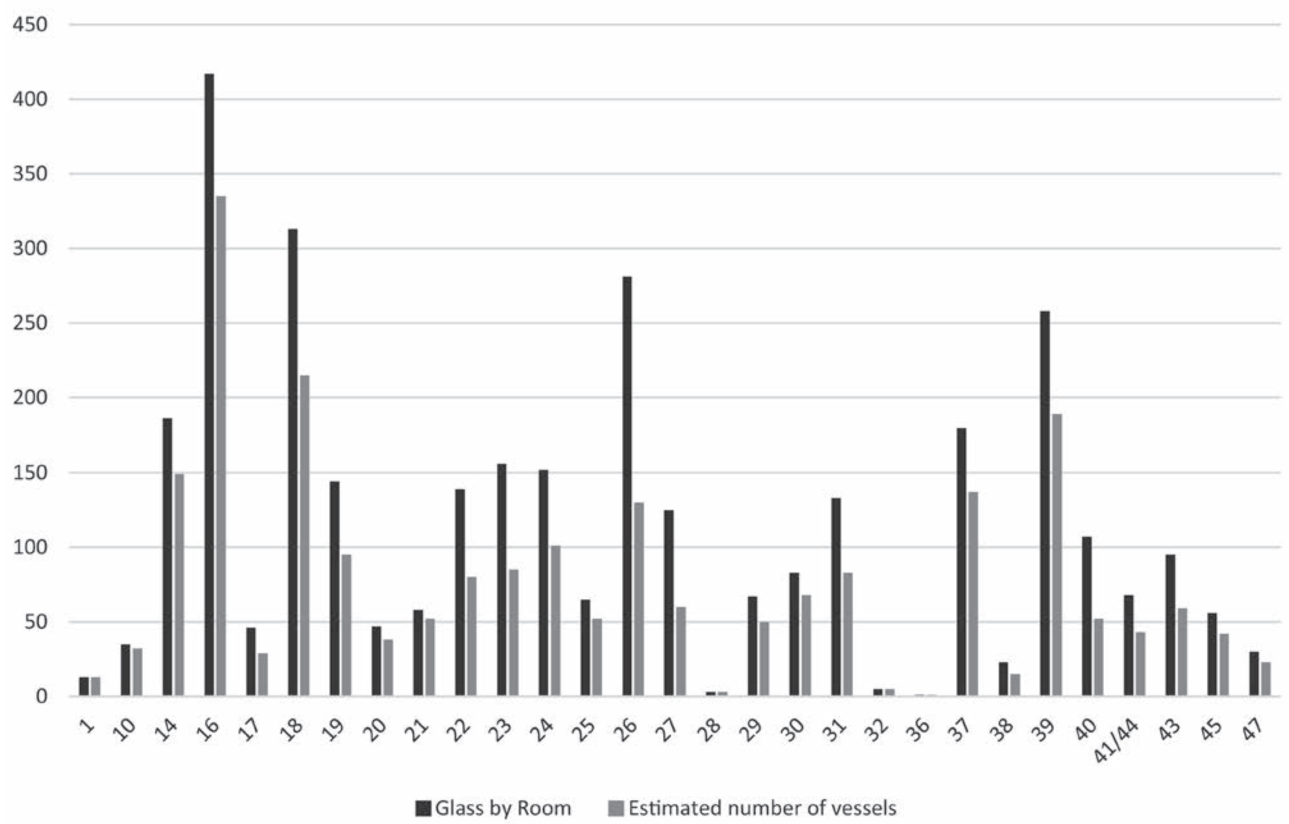


Figure 9.2. The vessel glass as deposited by room/area

The glass from these rooms also has a much higher SVR than that from the remainder of the triconch complex, reinforcing the impression that these deposits represent coherent occupation in the west and south-west rooms of the triconch in the 5th century in particular (Bowden *et al.* 2011c, 60–6). A similarly coherent deposit dating to the late 6th century can be noted in Room 40 of the Merchant's House, where a quantity of vessel glass thought to relate to an *in situ* roof collapse deposit (3105) was recorded in association with a group of coins of which the latest was a *follis* of Justin II dated to 574–75 (Bowden *et al.* 2011d, 197). A further concentration of glass was also noted in the excavation from Room 37 (3090, 4018), but the low SVR suggests that this does not represent coherent *in situ* deposition.

The catalogue *(SJ with additions by KS)*

Below is a representative catalogue of the diagnostic glass fragments from the Triconch Palace excavations. Early and medieval glass are given their own categories. The remaining glass is organised first by form and then by variation of form. Unique decorated glass fragments are treated separately. All vessel fragments are from blown glass unless the manufacturing technique is otherwise noted. When parallels could be drawn, they are mentioned before each catalogue section or within an entry if the parallel applies to that entry alone. Depositional phase is also noted and for ease of reference phases are summarised in Table 9.1.

Table 9.1. Dates of depositional phases referred to in the text

1: 3rd c. and earlier (*c.* AD 100–250)
2: 3rd to 4th c.
3: early 5th c. (*c.* AD 400)
4: early 5th c. (*c.* AD 420)
5: early to mid 5th c. (*c.* AD 420–450)
6: mid to late 5th c.
7: early 6th c.
8: mid 6th c. (*c.* AD 525–550)
9: mid to late 6th c.
10: late 6th to 7th c.
11: mid 7th to early 10th c.
12: early 10th to late 10th c.
13: early 11th to late 12th c.
14: early 13th to 14th c.
15: 15th c. and later

I. Early glass (Fig. 9.3)

1 Cast, linear-cut bowl, rotary grinding on both sides. Colourless glass, good quality, silver weathering. Context 3127. Merchant's House Room 45. Phase 14/15.

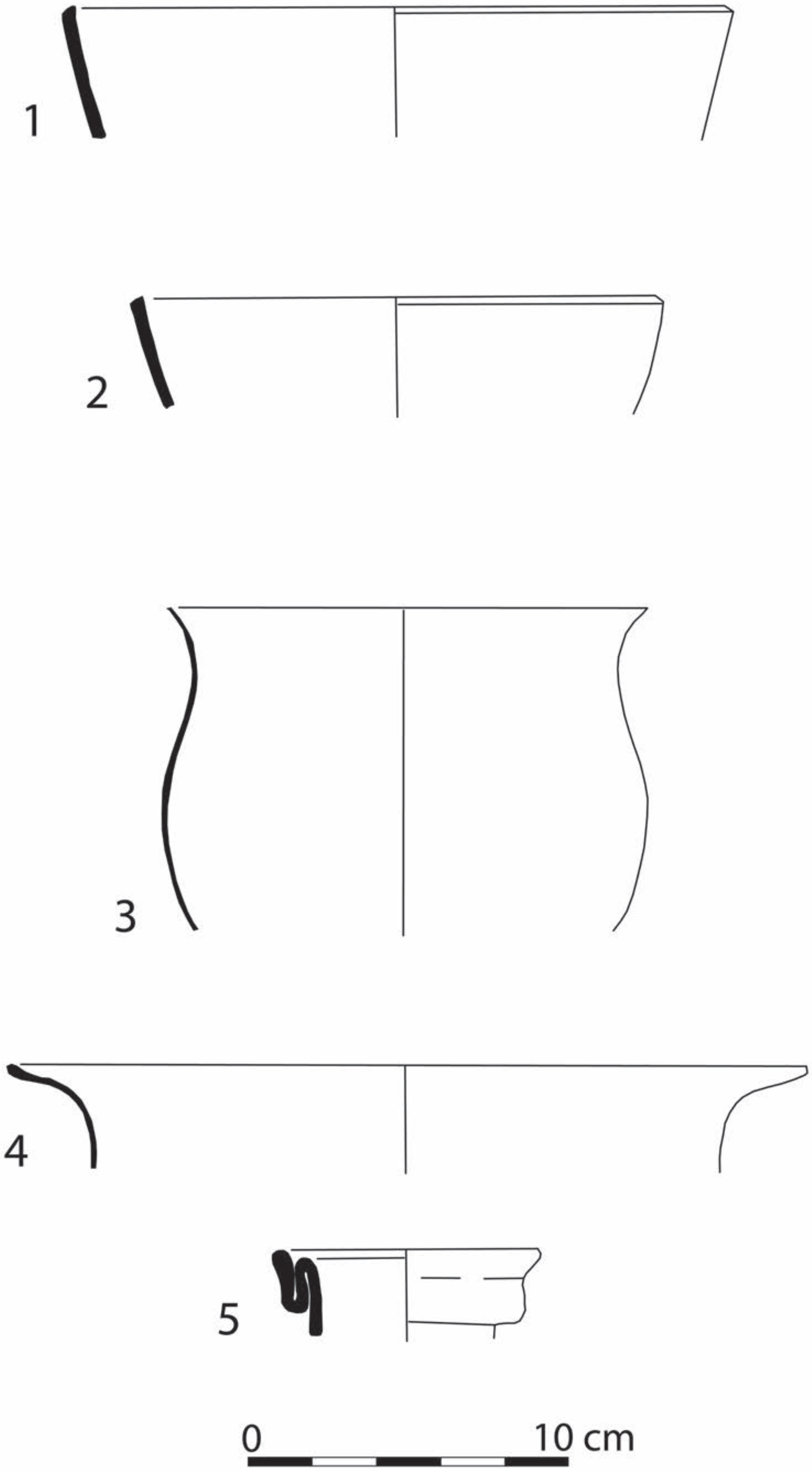

1
2
3
4
5
0
10 cm

Figure 9.3. Early glass (catalogue section I)

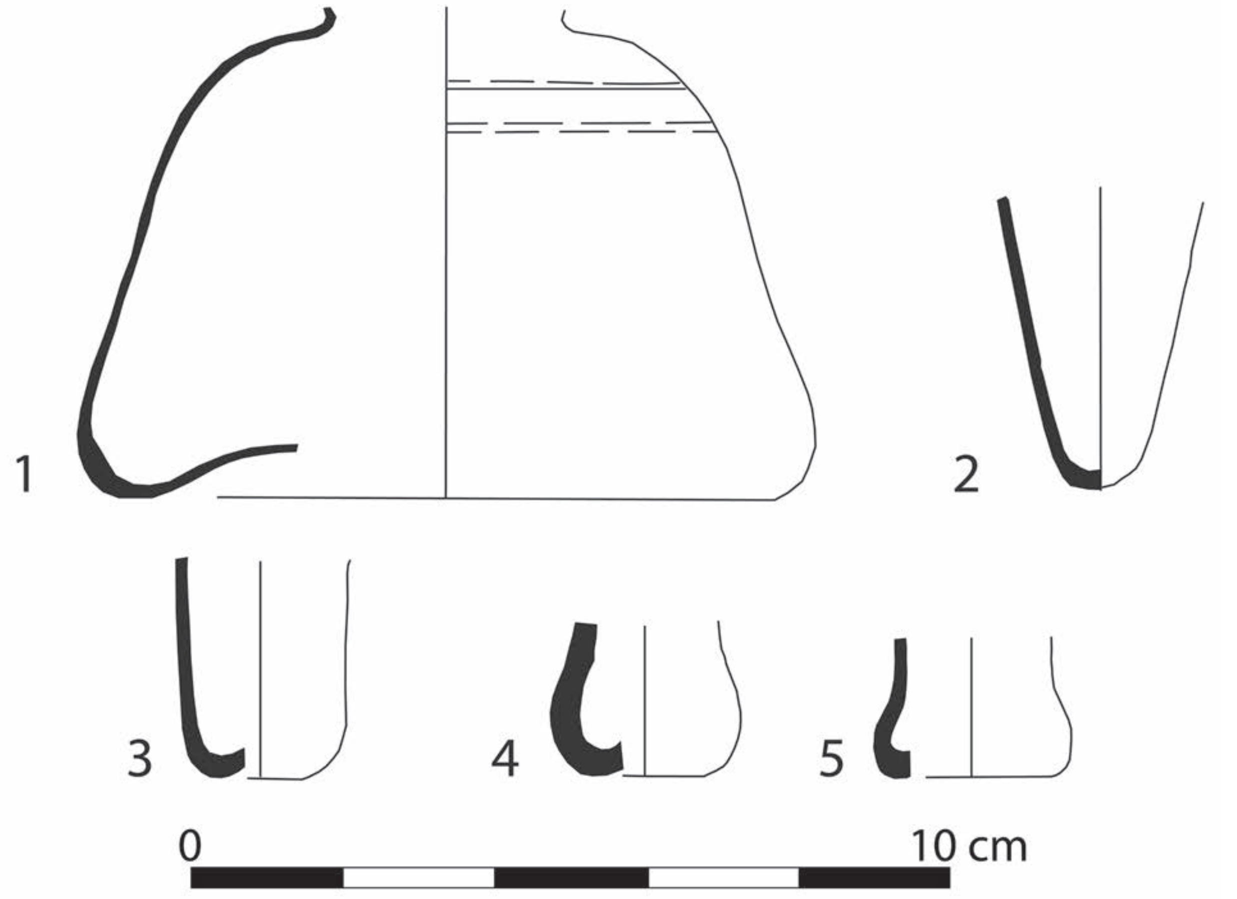


Figure 9.4. Unguentaria (catalogue section II)

This type of cast bowl, both deep and shallow, dates from pre-Roman times onward (Isings 1957, 15). This vessel corresponds with Isings Form 1 (Isings 1957, 15–17).

2 Cast bowl, rotary grinding on both sides, lighter on exterior. Colourless glass, silver weathering. Context 3127. Merchant's House Room 45. Phase 14/15.
See no. 1 for remarks.

3 Rim and joining fragment of a cup or beaker with an intermittent abrasion band and lightly ground rim edge. Yellowish green glass, virtually no bubbles but occasional impurities, no weathering. Context 5140. Triconch Room 18 (long gallery). Phase 5.
This form corresponds to Isings Form 96 (Isings 1957, 113). Isings suggests the form originates in the 3rd century in the Roman Empire and is declining in use by the first half of the 5th century (Isings 1957, 113–14).

4 Beaker with an out-turned rim. Pale blue/green glass, very occasional small bubbles, no weathering. Context 5650. Triconch Room 31. Phase 1.

5 Folded collar rim from a flask or bottle. Green glass with occasional bubbles. Probably dating to the late 1st century. Context 2066. Merchant's House (outside city wall). Phase 14/15.

II. Unguentaria (Fig. 9.4)

1 Bell-shaped unguentarium or flask. Twenty-one fragments from a bell-shaped body; two abrasion bands on shoulder. Bright blue/green glass, slight iridescence on exterior, no iridescence on interior. Context 5100. Triconch Room 18 (long gallery). Phase 9.

2 Tapering rounded base from a flask or bottle. No pontil scar. Very pale green glass, thick matt off-white weathering. Context 1111. Triconch Room 10 (to north of *triclinium*). Phase 3.
Parallel identified at the Palatine Hill of Rome dating from the mid-4th to mid-5th century (Sternini 2001, 54, fig. 12, no. 121). Similar to lower half of Isings Form 106d, which dates from the 4th to 6th century (Isings 1957, 130–1).

3 Lower part of a small cylindrical toilet bottle. Green glass, dull striations. Context 5268. Triconch Room 21 (south wing). Phase 9.

4 Basal edge of a small toilet bottle. Yellowish-green glass with patches of dark brown weathering. Context 5264. Triconch Room 21 (south wing). Phase 9.

5 Lower wall and basal angle of a small vessel, probably an unguentarium or small jar. Olive green glass, dull exterior surface. Context 4038. Merchant's House Room 47. Phase 6.

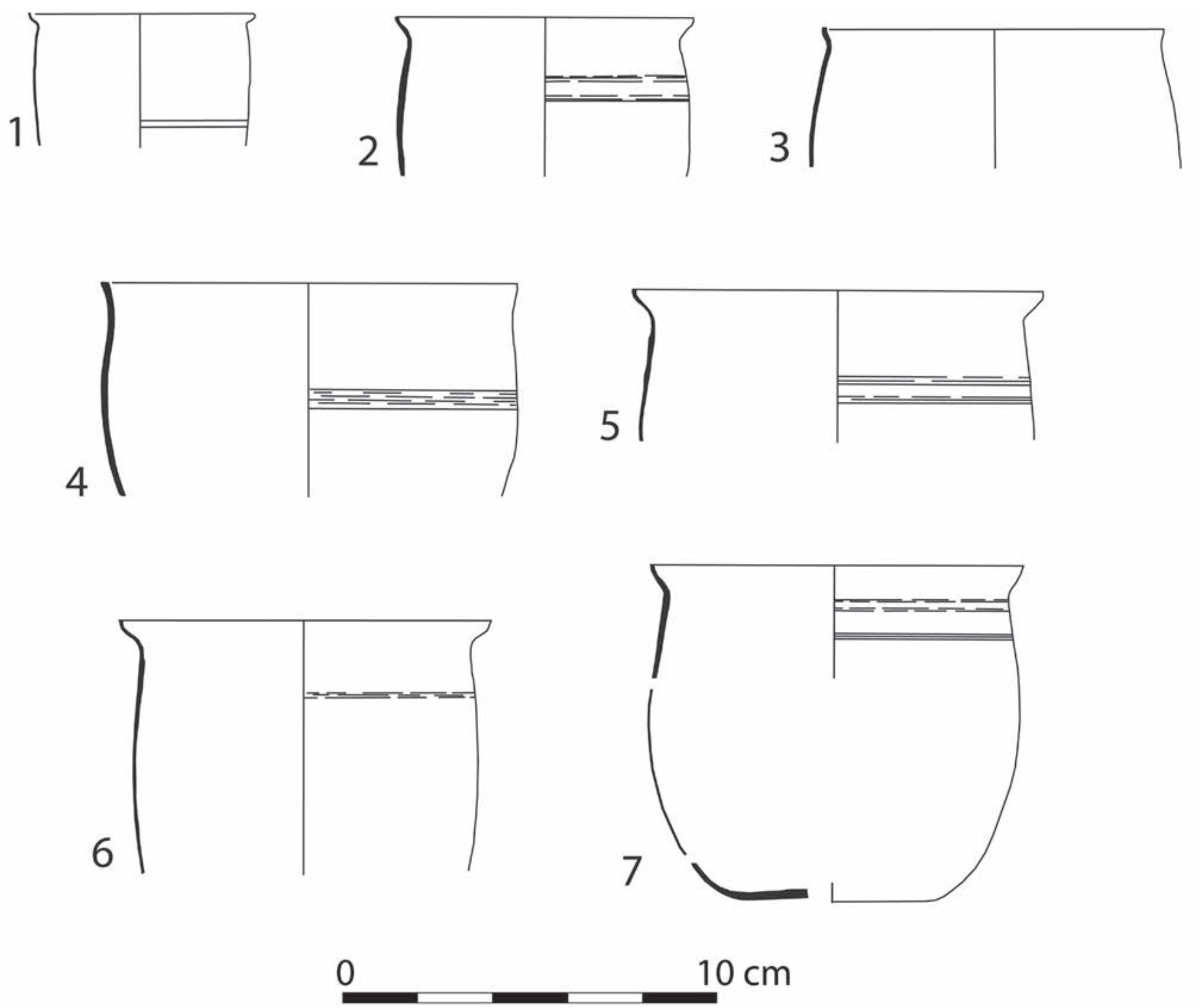


Figure 9.5. Cracked-off rim beakers (catalogue section III)

III. Beakers and Cups

CRACKED-OFF RIM BEAKERS (Fig. 9.5)

The form of following beakers is described by Isings as the 3rd-century Form 96 (Isings 1957, 113). The glass below, however, dates two or more centuries later which attests to the longevity and popularity of the form in the Roman Empire.

1 Short everted rim, lightly ground with two fine abrasion bands. Yellow glass. Context 3361. Triconch Room 26 (west wing). Phase 5.

2 Lightly ground rim edge, very fine and faint abrasion lines just below rim edge and on shoulder. Good-quality dark green glass with very few seed bubbles, no weathering. Context 5074. Triconch Room 18 (long gallery – east). Phase 6.

3 Thin beaker rim probably dating to the late 5th/early 6th centuries. Green glass. Context 1422. Triconch Room 26 (west wing). Phase 7.

4 Single wide abrasion band at point of maximum diameter. Near colourless glass. Context 3325. Triconch Room 30 (west wing). Phase 9/10.

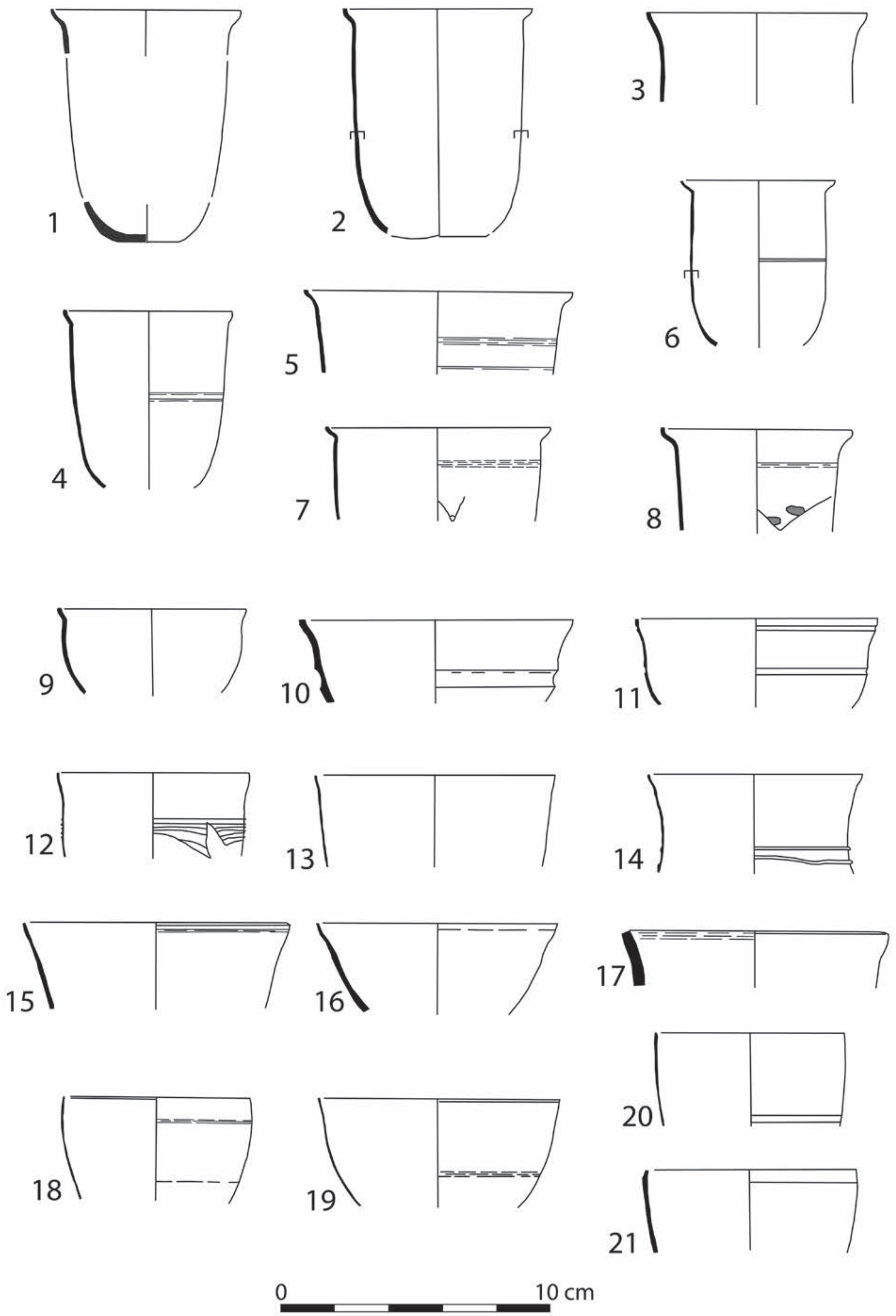
5 Rim edge lightly ground, pair of abrasion bands on the shoulder. Clear yellowish-green glass with occasional small bubbles, no weathering. Context 1114. Triconch Room 14 (north wing). Phase 15.

6 Many fragments from a cracked-off beaker rim with abrasion bands. Greenish-yellow glass, no weathering. Context 5392. Triconch Room 27 (west wing). Phase 6.

7 Cracked-off and ground beaker rim and associated base fragment. Two thin and one thicker abrasion lines on shoulder. Greenish-yellow glass, thin brown leaden weathering. Context 5014. Triconch Room 23 (south wing). Phase 7.

CRACKED-OFF RIM BEAKERS AND CUPS (cont'd) (Fig. 9.6)

1 Rim, base and body fragments. Lightly ground rim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17
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21
0
10 cm

Figure 9.6. Cracked-off rim beakers and cups (cont'd) (catalogue section III)

edge, outer base slightly rough where it has been flattened. Yellowish-green glass, virtually no bubbles, no weathering. Context 3280. Triconch Room 30 (west wing). Phase 15.

Corresponds to Isings Form 106c (Isings 1957, 129).

2 Rim and non-joining body fragments. Lightly ground rim edge, sage-green glass, frequent very small bubbles. Iridescence and patches of thin brown weathering. Context 3339. Triconch Room 26 (west wing). Phase 5.

See no. 1 for remarks.

3 Rim of very pale green glass. Context 1534. Triconch Room 24 (reception room). Phase 8.

4 Lightly ground rim, two fine abrasion lines at mid-point on body. Green glass. Context 1300. Triconch Room 24 (reception room). Phase 7.

See no. 1 for remarks.

5 Lightly ground rim edge and two abrasion bands on vessel body. Yellowish-green glass with occasional small bubbles, no weathering. Context 5074. Triconch Room 18 (long gallery). Phase 6.

6 Rim, body and base fragments. One thin abrasion band. Sage-green glass. Context 3469. Triconch Room 26 (west wing). Phase 5.

See no. 1 for remarks.

7 Beaker with dark blue blob decoration. Single abrasion band below neck constriction, edge of one blue blob. Green glass, no weathering. Context 1759. Triconch Room 18 (long gallery). Phase 6.

8 Single abrasion band, two blue chip blobs. Yellow glass, mid- to dark blue chips. Context 1300. Triconch Room 24 (reception room). Phase 7.

9 Cup, thicker than usual, plain. Green glass. Context 3361. Triconch Room 26 (west wing) Phase 5.

10 Cup or bowl. Ground rim edge, wide-cut groove. Near colourless glass with faint green tint. Context 3323. Triconch Room 30 (west wing), Phase 10.

11 Cup or small bowl, two shallow-cut grooves. Pale green glass, occasional small bubbles, slight iridescence. Context 5399. Triconch Room 16 (courtyard). Phase 12/13.

12 Cracked-off rim beaker with four to five turns of a thin self-coloured spiral trail below the rim. Green glass, no bubbles, thin mottled leaden weathering. Context 1964. Room 22 (south wing), Phase 5.

13 Thin-walled beaker. Colourless glass with faint green tint, small areas of thin patchy brown leaden weathering. Context 5302. Triconch Room 23 (south wing). Phase 5.

14 Cracked-off rim beaker. Very thin, partly melted-in applied trail. Blue/green glass, some iridescence on exterior, fire-polished interior. Unstratified. Unphased.

15 Ground bevelled rim edge, one narrow abrasion band just below rim. Faint green tinted glass with thin matt silver weathering. Context 1895. Triconch Room 28 (bath-house). Phase 5/6.

16 Lightly ground rim edge, faint ground line below rim. Greenish-yellow glass, very occasional bubbles. Context 5014. Triconch Room 23 (south wing), Phase 7.

17 Cup/beaker, thick cracked-off rim, well-ground on the top and upper 3mm of the inner surface. Very pale green glass, no weathering. Context 4038. Merchant's House Room 37. Phase 6.

18 Two pieces of a cracked-off rim cup with one abrasion band and an abrasion line on the lower body. Virtually colourless glass with very faint green tint, patchy thin silver weathering. Context 5630. Triconch Room 16 (courtyard). Phase 8/9.

19 Three fragments of a cracked-off rim beaker or small bowl, single faint abrasion line and one band. Faint green tint glass with silver weathering. Context 5629. Triconch Room 16 (courtyard). Phase 5/6.

20 Beaker with slightly flaring, straight sides and a plain cracked-off rim, lightly ground, and two abrasion lines. Glass has a faint blue/green tint and slight iridescence. Context 1019. Triconch Room 12 (northern entrance). Possibly Phase 6.

21 Wide-cut groove below rim. Bright blue/green glass with iridescence. Probably a 1st/early 2nd century form. Context 1111. Triconch Room 10 (to north of triclinium). Phase 3.

BEAKERS WITH FIRE-ROUNDED RIMS; RIMS FROM BEAKERS OR GOBLETS (Fig. 9.7)

1 Flaring rim with applied trail on top of rim and fine spiral trail with three turns on body. Colourless glass, opaque white trail. Context 3251. Triconch Room 16 (courtyard). Phase 3.

2 Slightly flaring rim with applied trail on top rim edge and fine trail spiralling down in four turns. Blue/green glass with dark blue trail. Context 1536. Triconch Room 31 (west wing). Phase 8.

3 Small bowl or cup/beaker with an upright fire-rounded rim and a narrow band of closely spaced, marvered-in fine white spiral trails below rim, four turns. Glass has a light green tint and thick off-white matt weathering. Context 4038. Merchant's House Room 47. Phase 6.

4 Beaker with shallow-cut grooves cut into wall below rim. Near colourless glass. Context 5270. Triconch Room 21 (south wing). Phase 8.

5 Beaker or goblet rim with contrasting dark coloured trail applied to the rim edge. Colourless glass with dark (corroded) trail. Context 5351. Triconch Room 23 (south wing). Phase 5.

6 Beaker or cup rim with mid-blue trail applied and partly marvered-in just below rim edge. Good-quality colourless glass, thin matt white weathering. Context 5362. Triconch Room 16 (courtyard). Phase 9.

7 Cup/beaker rim with applied trail of a contrasting colour marvered into the top of the rim. Colourless glass body, applied trail now totally weathered but possibly originally opaque white. Context 5013. Triconch Room 18 (long gallery). Phase 8.

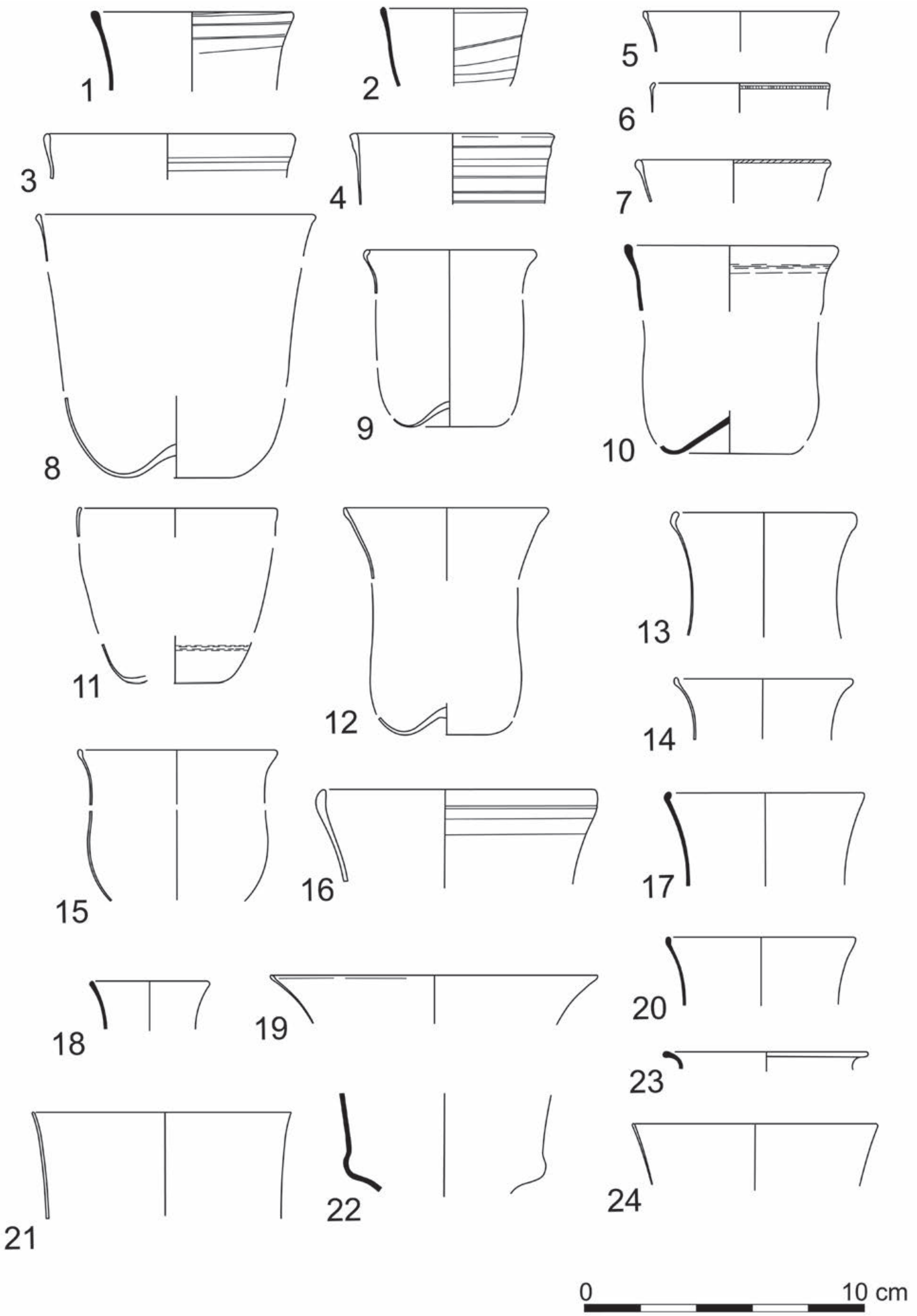
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Figure 9.7. Beakers with fire-rounded rims; rims from beakers or goblets (catalogue section III)

8 Beaker, four base fragments and a non-joining rim. Fire-rounded rim, base pushed in with a pointed implement, pontil scar. Yellow glass with no bubbles, thin brown leaden weathering. Context 1545. Triconch Room 25 (west wing). Phase 10.

9 Small beaker with fire-rounded rim, base pushed in with a point, ring pontil scar. Yellow glass, areas of black leaden weathering. Context 1152. Triconch Room 14. Phase 8.

10 Fire-rounded rim and base. Two fine abrasion bands below rim. Very pale blue/green glass. Context 3091. Merchant's House Room 40. Phase 14.

11 Cup/beaker with a plain, slightly inturned fire-rounded rim. One, probably two, faint abrasion bands on the lower wall near the basal angle. Pale green glass, no weathering. Context 4033. Merchant's House Room 41/44. Phase 6.

12 Rim and domed base with pontil scar. Peacock blue glass, thin iridescence. Context 5322. Triconch Room 16 (courtyard). Phase 12/13.

13 Rim and joining body sherd from a goblet or beaker. Green tinted glass with silver and brown weathering. Context 5494. Triconch Room 31 (west wing). Phase 6/7.

14 Fire-rounded rim; good-quality colourless glass with very few small bubbles; thin silver and patches of leaden weathering. Context 5079. Triconch Room 19 (south wing). Phase 8.

15 Rim and two body fragments from a goblet. Colourless glass, thin matt silver weathering. Context 5270. Triconch Room 21 (south wing). Phase 8.

16 Rim with the scar of a fine spiral trail. Colourless glass with many small bubbles, iridescence. Context 3259. Triconch Room 27 (west wing). Unphased.

17 Flaring, fire-rounded rim. Nearly colourless glass with a faint green tint, many small bubbles, silver and matt brown weathering. Context 1422. Triconch Room 26 (west wing). Phase 7.

18 Flaring rim. Colourless glass. Context 1438. Triconch Room 24 (reception room). Phase 7/8.

19 Flaring thin beaker rim, four joining fragments. Pale yellow glass, thin silver weathering. Context 5551. Triconch Room 19 (south wing). Phase 6/7.

20 Rim from a goblet. Pale yellow glass, silver weathering. Room 1523. Triconch Room 31 (west wing). Phase 7/8.

21 Very thin plain rim, yellow glass. Context 3156. Merchant's House Room 37. Phases 3–5.

22 Lower wall of goblet. Pinkish-yellow glass, iridescence on outer surface only. Context 3220. Merchant's House Room 39 (courtyard). Phase 15.
Form of the lower part of the bowl is similar to that of Isings Form 36, a 1st-century chalice (Isings 1957, 50).

23 Everted fire-rounded rim from either a jar or a cup/beaker. Pale blue/green glass, slight iridescence. Context 1111. Triconch Room 10 (to north of *triclinium*). Phase 3.

24 Cup/beaker, thin plain fire-rounded rim. Deep purple glass, thin silver and leaden weathering. Possibly medieval. Context 1152. Triconch Room 14 (north wing). Phase 8.

IV. Bowls

CRACKED-OFF RIM BOWLS (Fig. 9.8)

1 Lightly ground rim edge, two wide abrasion bands. Blue/green glass. Context 3339. Triconch Room 16 (courtyard). Phase 5.

2 Rim and three non-joining body fragments from a cracked-off rim bowl, abrasion line just below rim edge. Greenish-blue tinted glass, matt opaque white weathering. Context 5630. Triconch Room 16 (courtyard). Phase 8/9.

3 Very lightly ground rim edge with an abrasion band immediately below and a patchy abrasion line on body. Yellowish green glass, no weathering. Context 5351. Triconch Room 23 (south wing). Phase 5.

4 Indented bowl, probably eight indents. Very thin abrasion line just below rim. Sage-green glass. Context 3280. Triconch Room 30 (west wing). Phase 15.
Corresponds to Isings Form 117, a common late Roman form (Isings 1957, 147).

5 Indented bowl, eight or nine indents. Fine abrasion line immediately below rim edge. Green glass. Context 3280. Triconch Room 30 (west wing). Phase 15.
See no. 4 for remarks.

6 Bowl, three fine grooves immediately below rim on exterior. Light green glass, silver iridescence. Context 1152. Triconch Room 14 (north wing). Phase 8.

7 Wide-cut groove immediately below rim edge. Near colourless with very faint green tint. Context 3325. Triconch Room 30 (west wing). Phase 9/10.

8 Rim and non-joining body fragment from a cracked-off rim, deep hemispherical bowl, abrasion band immediately below well-ground rim. Context 5630. Triconch Room 16 (courtyard). Phase 8/9.

9 Plain, upright, cracked-off rim. Lightly ground rim edge. Good-quality yellow-green glass, thin matt silver weathering. Context 5199. Triconch Room 20 (south wing). Phase 5.

10 Bowl with one narrow and one wide abrasion band, well-ground rim edge. Very pale sage-green glass, patchy thin brown weathering. Context 3280. Triconch Room 30 (west wing). Phase 15.

11 Well-ground rim edge, wide abrasion band below point of maximum diameter above what appears to be a chevron pattern. Green tinted glass with a single large bubble, no weathering. Context 5409. Triconch Room 29 (west wing). Phase 5/6.

12 Thin-walled plain bowl. Sage-green glass. Context 3339. Triconch Room 16 (courtyard). Phase 5.

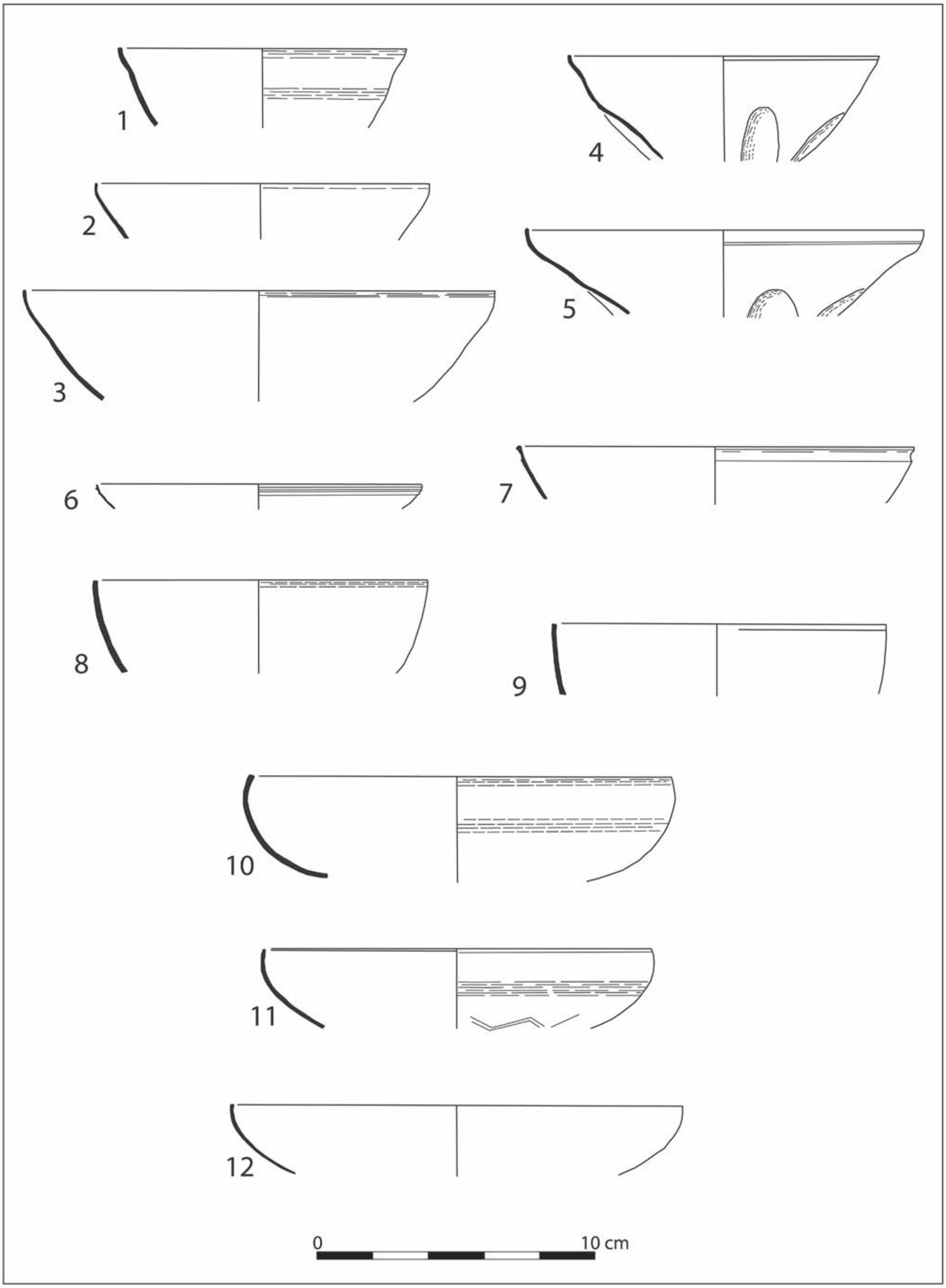
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Figure 9.8. Cracked-off rim bowls (catalogue section IV)

BOWLS WITH FIRE-ROUNDED RIMS (Fig. 9.9)

1 Large bowl with projecting rim, five fragments. Near colourless glass with slight green tint, opaque matt white weathering under a dark brown black layer of weathering. Context 5140. Triconch Room 18 (long gallery). Phase 5.

2 Rim and foot-ring base from a large bowl. Pale green glass, thick matt off-white weathering. Context 5140. Triconch Room 18 (long gallery). Phase 5.
Similar to Isings Form 80 (Isings 1957, 96).

3 Bowl with a short projecting flange rim. Colourless glass covered with thick matt white weathering. Context 5074. Triconch Room 18 (long gallery). Phase 6.

4 Bowl with the rim edge rolled outwards and slightly downwards. Green glass with thick off-white and leaden weathering. Context 5074. Triconch Room 18 (long gallery). Phase 6.

5 Bowl, slightly everted fire-rounded rim. Pale green glass, thick off-white and mottled weathering. Context 5074. Triconch Room 18 (long gallery). Phase 6.

6 Large bowl with flaring side and a short upright rim. Colourless glass, silver and leaden weathering. Context 1488. Triconch Room 33. Phase 6.

7 Large bowl with everted rim. Colourless glass with a slight green tint, silver weathering. Context 3325. Triconch Room 30 (west wing). Phase 9/10.

8 Bowl with applied contrasting trail applied on rim edge now partly corroded away. Light green glass, trail probably white, thin silver weathering. Context 1740. Triconch Room 18 (long gallery). Phase 8.

9 Shallow, flat bowl with flaring rim. Green glass. Context 3306. Triconch Room 24 (reception room). Unphased.

10 Large bowl with external rim fold. Colourless with a greenish tint, no weathering. Context 2096. Triconch Room 16 (courtyard). Phase 8.

11 Large dish with turned down rim. Green glass. Context 1545. Room 25 (west wing). Phase 10.

12 Bowl with pincered, pulled-out rim. Green glass with silver and thin leaden weathering. Context 1545. Room 25 (west wing). Phase 10.

V. Goblets (Fig. 9.10)

1 Goblet, folded base with associated fire-rounded rim. Yellow glass with thin silver iridescence. Context 1137. Triconch Room 14 (north wing). Unphased.
This form of goblet base and stem originates in the 4th to 6th century in the eastern Mediterranean (Whitehouse 1997, 104). The form corresponds to Isings Form 111, Karanis class VII.A.I(a), Baur Type F, and Gürler-Lafli Type XVI (Isings 1957, 139; Baur 1938, 526; Gürler and Lafli 2010, 134, fig. 10 nos. 66, 68, 69). Parallels are known from Jordan and Syria, Israel, Italy, Istria and Turkey (Whitehouse 1997, 105 cat. 156; Fleming 1997, 46 pl. 68e; Arveiller-Dlong and Nenna 2005, 477 no. 1998; Dussart 1998, planche 27 and 28, 267–7, BIX.1; Barag 1967, fig. 16 nos 15 and 17; Sternini 2001, 53, fig. 11 no. 113; Băjenaru and Bâltâc 2000–1, pl. 6.1; Höpken 2010, abb. 5 nos 54 and 55; Gorin-Rosen and Winter 2010, fig. 2 no. 8, 168; Acara and Olcay 1997, fig. 3; Meyer 1988, 196, fig. 8, Y-cc; Gill 2002, 170 fig. 2/4: 64–7; Czurda-Ruth 2007, pl. 20, 783 pl. 694; Stern 1985, 45 fig. 3).

2 Large folded goblet base. Very slight bulge at stem. Near colourless glass. Context 3280. Triconch Room 30 (west wing). Phase 15.
See no. 3 below for remarks. Note, however, that the shape of the stem is neither clearly straight nor knopped and thus is not an ideal example of the form.

3 Folded goblet base with small knop. Glass has a very pale yellow tint. Context 5023. Triconch Room 13 (south wing). Phase 12/13.
Folded goblet bases with bulges at the stem have been found at Amorium (3rd to 4th century), Iznik (Nicea), Salpi (*c.* 6th to 8th century), Sardis (6th to early 7th century, Jerusalem, and as late as the 17th century in San Lorenzo (Gill 2002, 65 fig. 1/5:56–58, 61–62 and 73 fig. 1/16:238; Sternini 2001, 83 fig. 2.a, b, c, d, e; Harden 1966, 75 cat. no. 12; Saldern 1980, plate 24 no. 351; Gorin-Rosen and Winter 2010, 169 fig. 3; Harden 1966, 77 cat. no. 19). The form corresponds with Baur Type F, Saldern Type 2 (Baur 1938, 527 fig. 21 no. 22; Saldern 1980, plate 24 no. 343.

4 Folded goblet base with slight bulge to the stem. Small solid pontil scar. Brownish-yellow glass with thin matt off-white weathering. Context 1000. Unphased.
See no. 3 for remarks.

5 Well-formed large knop from a goblet or wine glass. Very pale yellow-green glass. Context 1273. Triconch Room 18 (long gallery). Phase 9.
See no. 3 for remarks.

6 Folded goblet base, small and irregular. Pale yellow glass, mottled silver weathering. Context 4168. Merchant's House Room 38. Phase 13.
See no. 1 for remarks.

7 Goblet base with straight stem and unusually low floor to the bowl. Green glass. Context 3115. Merchant's House Room 40. Phase 10.
See no. 1 for remarks.

8 Goblet, the folded base protrudes into the base of the bowl. Pontil scar. Yellowish-green glass with silver and brown leaden weathering. Context 3044. Merchant's House Room 45. Phase 14/15.
See no. 1 for remarks.

9 Folded goblet base with straight stem. Pale yellow glass. Context 5426. Triconch Room 19 (south wing). Phase 10.
See no. 1 for remarks.

10 Probable goblet base with open fold. Blue glass. Triconch. Context 3220 Unphased.
A parallel form is seen at Amorium (3rd to 4th century). (Gill 2002, 66 fig. 1/6:83).

11 Goblet base, unusual shape. Green tinted glass, some

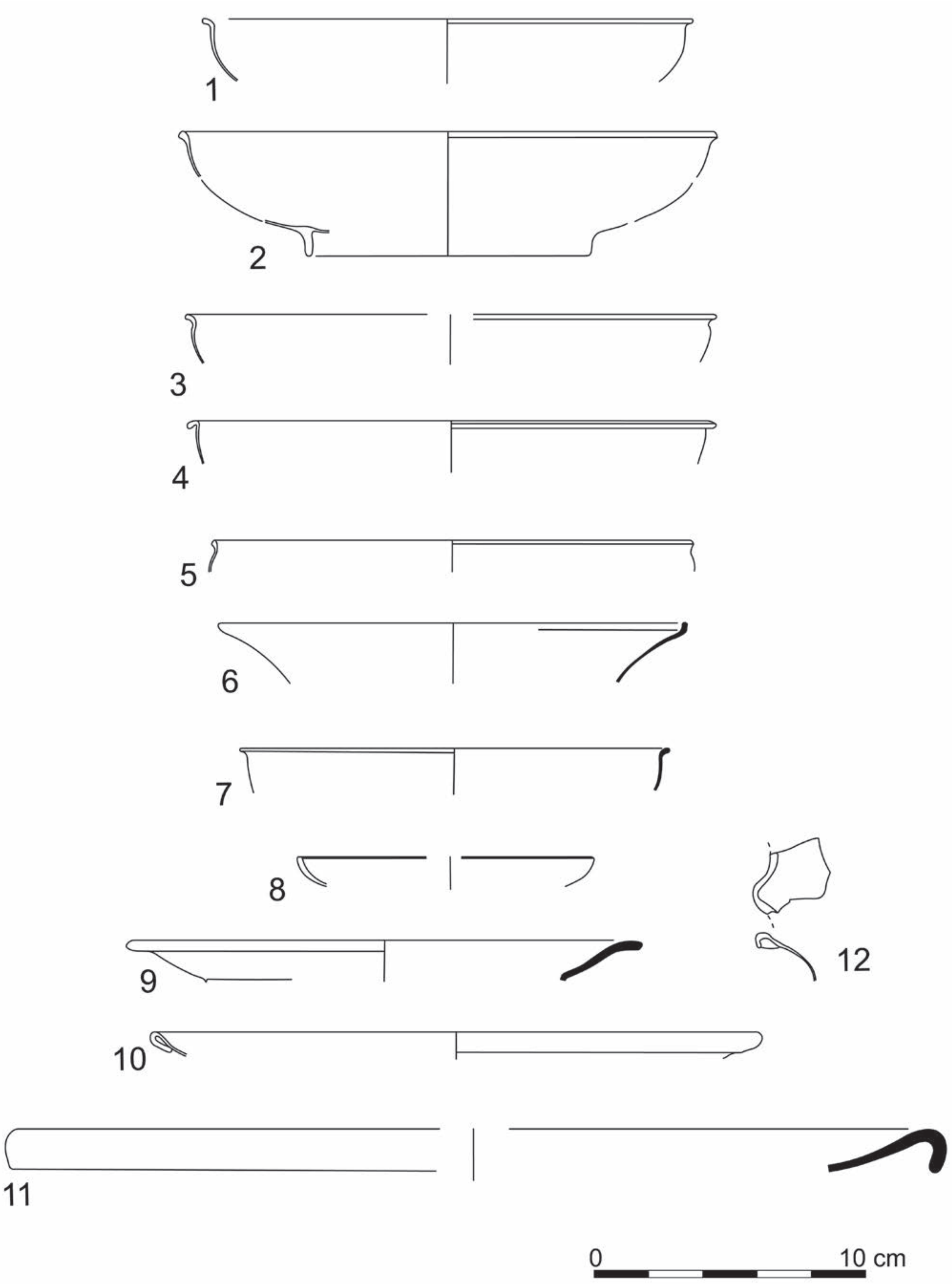
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Figure 9.9. Bowls with fire-rounded rims (catalogue section IV)

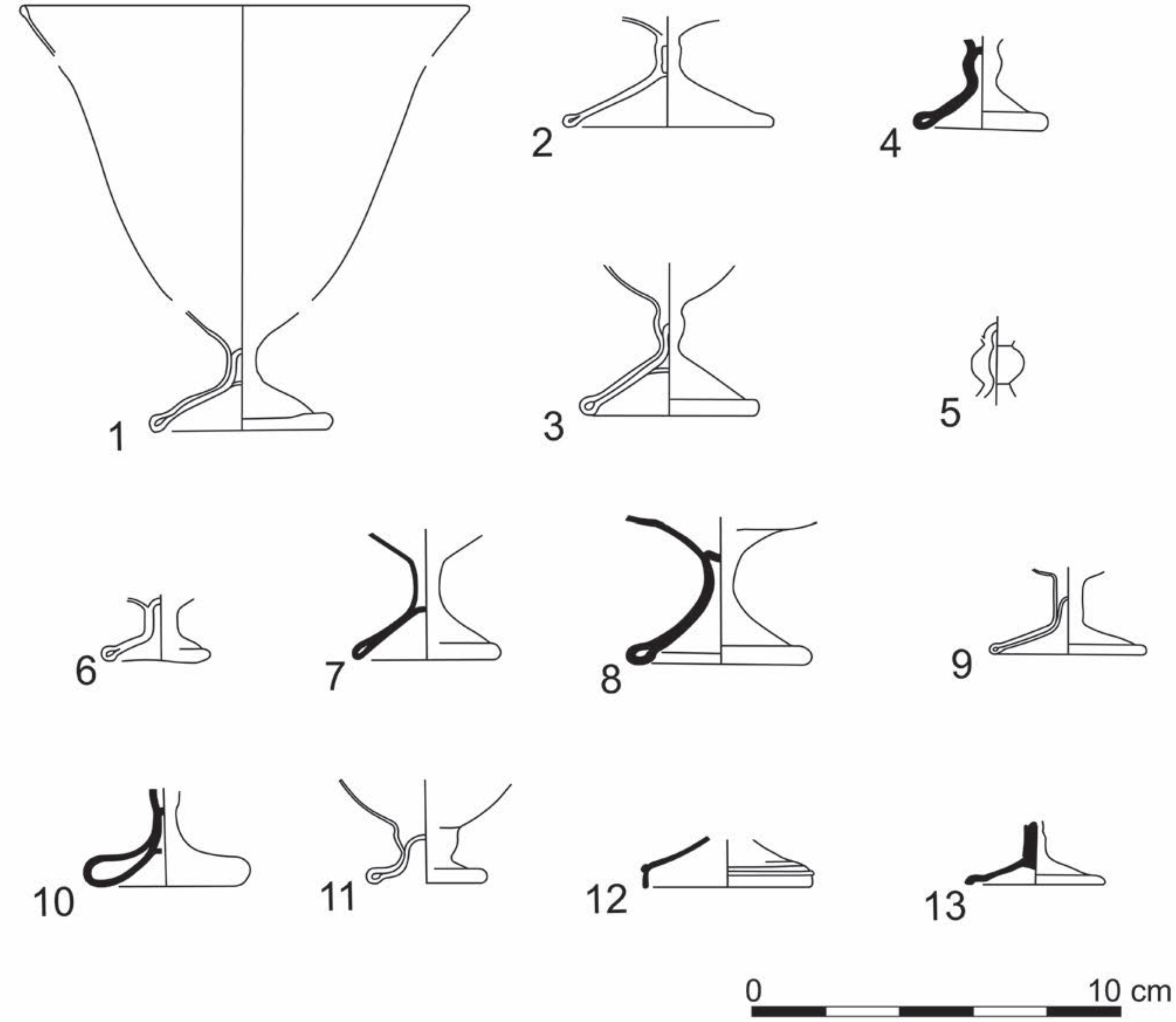

Figure 9.10. Goblets (catalogue section V)

iridescence. Context 5305. Triconch Room 21 (south wing). Phase 7.

See no. 3 for remarks. Note, however, that the stem of this vessel is much thicker than typical examples.

12 Foot of a goblet or wine glass. Nearly colourless glass with a spiral trail of light blue glass starting on the upper edge, mottled silver and leaden weathering. Context 1300. Triconch Room 24 (reception room). Phase 7/8.

13 Goblet or wine glass base with an integral stem. Pale green glass with frequent small bubbles, thin silver weathering. Context 3280. Triconch Room 30 (west wing) Phase 15.

Only one solid stem goblet was recovered from the Triconch Palace excavations, but this form has been identified at many sites throughout the Mediterranean, in southern France (8th to 14th century) (Foy 1989, 207 figs 52–54), Sardis (*c*. 6th century) (Saldern 1980, plate 24 nos 376, 382), Rome (mid-4th to mid-5th century) (Sternini 2001, 53 fig. 11 no. 113), Karanis (late antiquity) (Harden 1936, pl. 16 nos 479, 482, 484, 488), and at Amorium (Gill 2002, 64 fig. 1/4: 34–43 and 170 fig. 2/3:46–59).

VI. Lamps (Fig. 9.11)

1 D-shaped handle with notched lower trail attached to a curved vessel wall. Yellow glass, silver and brown leaden weathering. Context 5342. Triconch Room 23 (south wing). Phase 5.

2 Handle attached just over the top of the plain fire-rounded rim. Pale green glass, thin grey weathering. Context 4002. Merchant's House Room 40. Phase 13b. This is a typical lamp form in the eastern Mediterranean, predominately from the late 5th to 7th century (Fünfschilling 2009, 147). A similar form is found at

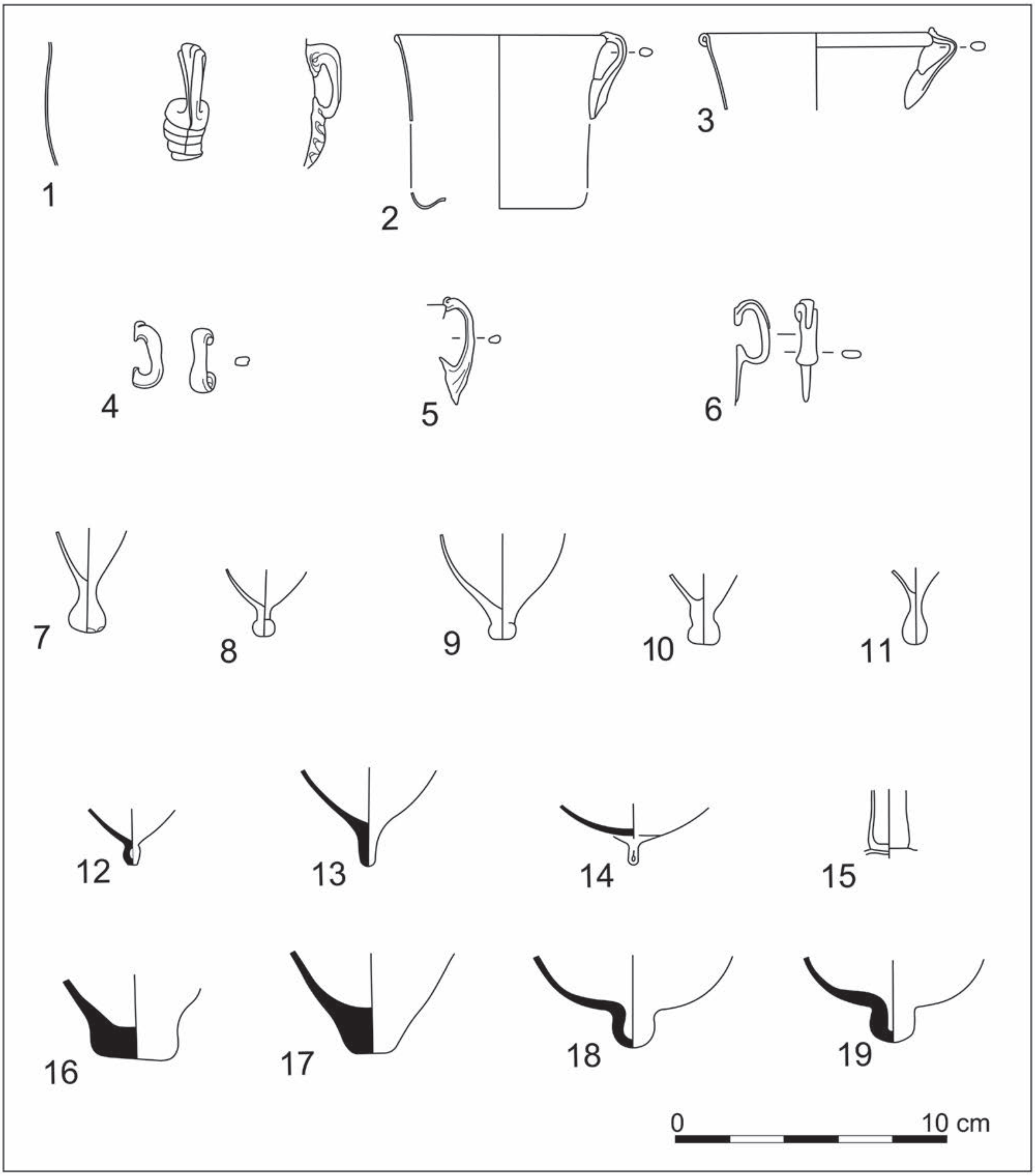

Figure 9.11. Lamps (catalogue section VI)

Shavei Zion and Bet Shean, Israel (Barag 1967, fig. 16 nos 21 and 22; Hadad 1998, 65 Type 1, fig. 1 no.1). Closer parallels are found at a 5th- to 6th-century tomb in Gezer and at Amorium (Crowfoot and Harden 1931, plate 28 no. 7; Gill 2002, 169 fig. 2/1:3, 6).

3 Bowl lamp consisting of two joining rim fragments and a handle. Rim externally folded, handle with a circular blob lower attachment. Light green glass, matt surfaces. (Unstratified find from clearance to south of city wall). Unphased.

This lamp form is found from the end of 4th century. It is quite a common lamp type, found in the Near East and in Italy where its typical northern limit was Rome (Isings 1957, 162). This form corresponds to Crowfoot and Harden Type C, Isings Form 134, Barag Types 12 and 13, and Uboldi Type 1.1 (Crowfoot and

Harden 1931, plate 30 nos 40 and 50; Isings 1957, 162; Barag 1970, 184; Uboldi 1995, 104–8, fig. 2:1 and 5). Indeed parallels for this form are numerous and range from Egypt to Syria to Greece (Hadad 1998).

4 Small D-shaped handle attached to the vessel wall. Green glass. Context 1606. Triconch Room 18 (long gallery). Phase 9.

5 Handle from a lamp, upper attachment to the rim edge at the top. Colourless glass with a green tint, matt silver weathering. Context 1138. Triconch Room 14 (north wing). Unphased.

6 D-shaped handle attached to the vessel wall. Very pale green glass. Context 3027. Triconch Room 16 (courtyard). Phase 4.

7 Drop base lamp with a narrow body, pontil scar on tooled knob base. Light green tinted glass, dull surfaces. Context 5362. Triconch Room 16 (courtyard). Phase 9.

8 Drop lamp base, no evident pontil scar. Light green glass, dull surfaces. Context 4100. Merchant's House Room 37. Phases 3–5.

9 Drop lamp base with small pontil scar on tooled knob base. Green tinted glass, no weathering. Context 5494. Triconch Room 31 (west wing). Phase 6 or 7.

10 Drop base lamp, narrow body. Light green glass. Context 1534. Triconch Room 24 (reception room), Phase 8.

11 Drop base lamp, pontil scar. Pale green glass, thin matt silver weathering. Context 4033. Merchant's House Room 41/44. Phase 6.

12 Drop base lamp with base formed by constriction, pontil scar. Pale green glass. Context 1899. Triconch Room 16 (courtyard). Phase 13/14.

13 Drop lamp base, drop formed with jacks. Pale blue/green glass. Context 1300. Triconch Room 24 (reception room). Phase 7/8.

14 Drop lamp base, wide bowl with separate applied drop. Pale blue/green glass. Context 1114. Phase 15.

15 Lower part of a wick holder. Non-standard greenish-blue glass, silver and black leaden weathering. Context 5265. Triconch Room 16 (courtyard). Phase 15.

16 Probable lamp, thick lop-sided base. Sage-green glass. Context 3248. Triconch Room 16 (courtyard). Phase 12/13.

This form corresponds to Saldern Type 4 excavated at Sardis (Saldern 1980, pl. 23 no. 287).

17 Lamp with tooled thick base, pontil scar. Olive green glass. Context 1112. Triconch Room 14 (north wing). Phase 15.

See no. 16 for remarks.

18 Lamp base with rounded open base. Light green glass. Context 1112. Triconch Room 14 (north wing). Phase 15.

A similar lamp form is found at Jalame dating from the late 3rd century to 350 (Weinberg 1988, 86 fig. 4-44 no. 394).

19 Lamp base with thick rounded open base, pontil scar. Green glass. Context 1112. Triconch Room 14 (north wing). Phase 15.

See no. 18 for parallels.

VII. Mould-blown bottles (Fig. 9.12)

1 Base of a square mould-blown bottle. Plain, slightly domed base with no evidence for a pontil scar. Green glass, slight iridescence. Context 1127. Triconch Room 14 (north wing). Phase 8.

2 Base of a square mould-blown bottle. Plain domed base with no evidence for a pontil scar. Green glass, brown mottled weathering. Context 1127. Triconch Room 14 (north wing). Phase 8.

3 Edge of base from mould-blown square bottle with motifs. Green glass. Context 3323. Triconch Room 30 (west wing). Phase 10.

4 Pattern base fragment from a mould-blown square bottle. Green glass. Context 1422. Triconch Room 26 (west wing). Phase 7.

VIII. Jugs and flasks (Fig. 9.13)

1 Two overlapping but non-joining fragments of a flask with cracked-off rim, thin-walled. Bright blue/green glass, thin silver weathering. Context 1227. Triconch Room 17 (north wing). Phase 3.

2 Long, thin flaring funnel neck of a flask with a slightly rounded rim. Colourless glass, silver and leaden weathering. Context 1009. Triconch Room 10 (to north of *triclinium*). Phase 2.

3 Large flask neck, folded-in rim, and a non-joining cylindrical neck. Green glass. Context 3251. Triconch Room 16 (courtyard). Phase 3.

4 Funnel neck flask, rolled-in rim, single trail on neck. Near colourless glass with brown tint. Context 3083. Merchant's House Room 37. Phase 14/15.

5 Late Roman jug rim with upper handle attachment attached to the neck and folded upwards. Green glass with a few impurities and some bubbles. Context 5209. Triconch Room 18 (long gallery). Phase 3.

6 Jug rim with handle attachment. Handle attached to the narrowest point on the neck, drawn down then looped back up to the rim edge; handle probably lightly ribbed and wide. Pale blue/green glass covered with thick silver and leaden weathering. Context 1270. Triconch Room 17 (north wing). Unphased.

7 Jug, rolled-in rim with single trail below rim edge, handle attached to rim edge and folded down to neck and then upwards. Bright blue/green glass. Context 3259. Triconch Room 27 (west wing). Unphased.

8 Funnel neck jug with ribbon handle applied to rim edge, drawn down and back up. Green glass, slightly matt surface. Context 1490. Triconch Room 25 (west wing) Phase 6.

9 Jug with an irregularly folded-in rim. Blue green glass,

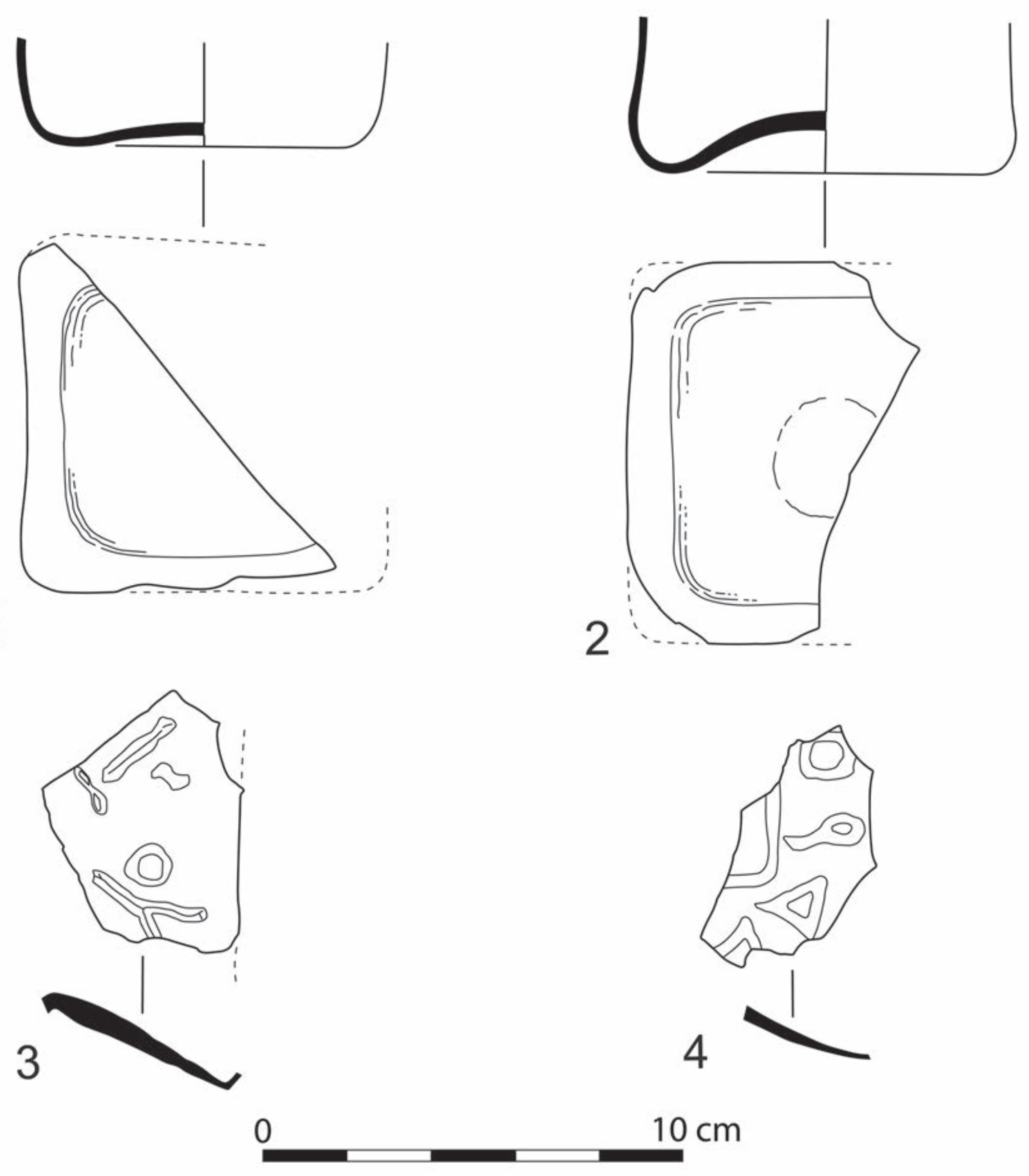

Figure 9.12. Mould-blown bottles (catalogue section VII)

silver weathering. Context 3127. Merchant's House Room 45. Phase 14/15.

10 Bottle or flagon neck with handle. Double ribbed handle attached below the rim with a fold. Dark green glass with several large and many small bubbles. Context 1196. Triconch Room 17 (north wing). Phase 10.

11 Flask, flaring rolled-in rim, cylindrical non-joining neck. Very pale blue glass. Context 3403. Merchant's House Room 41. Phase 8 or earlier.

12 Irregular funnel neck, rolled-in rim. Sage-green glass. Context 3240. Triconch Room 16 (courtyard). Phase 6.

13 Folded-in flask rim. Near colourless glass with green tint, no weathering. Context 5475. Triconch Room 27 (west wing). Phase 6.

14 Small flask or jar rim, partly rolled-in. Colourless glass with very thin silver weathering. Context 5362. Triconch Room 16 (courtyard). Phase 9.

15 Neck from a flask with a rolled-in rim. Bluish-green glass with many small bubbles, no weathering. Context 1300. Triconch Room 24 (reception room). Phase 7.

16 Flaring rim from a flask or jar. Green glass with mottled leaden weathering. Context 5426. Triconch Room 19 (south wing). Phase 10.

17 Aqua-green glass with impurities and many small bubbles. Context 2051. Topsoil. Unphased.

18 Jug, plain out-turned rim with thick tail applied below; handle attached to neck and pulled outwards. Context 3323. Triconch Room 30 (west wing). Phase 10.

19 Flaring flask or jug rim, top edge of the rim has been lightly ground. Green tinted glass with a single

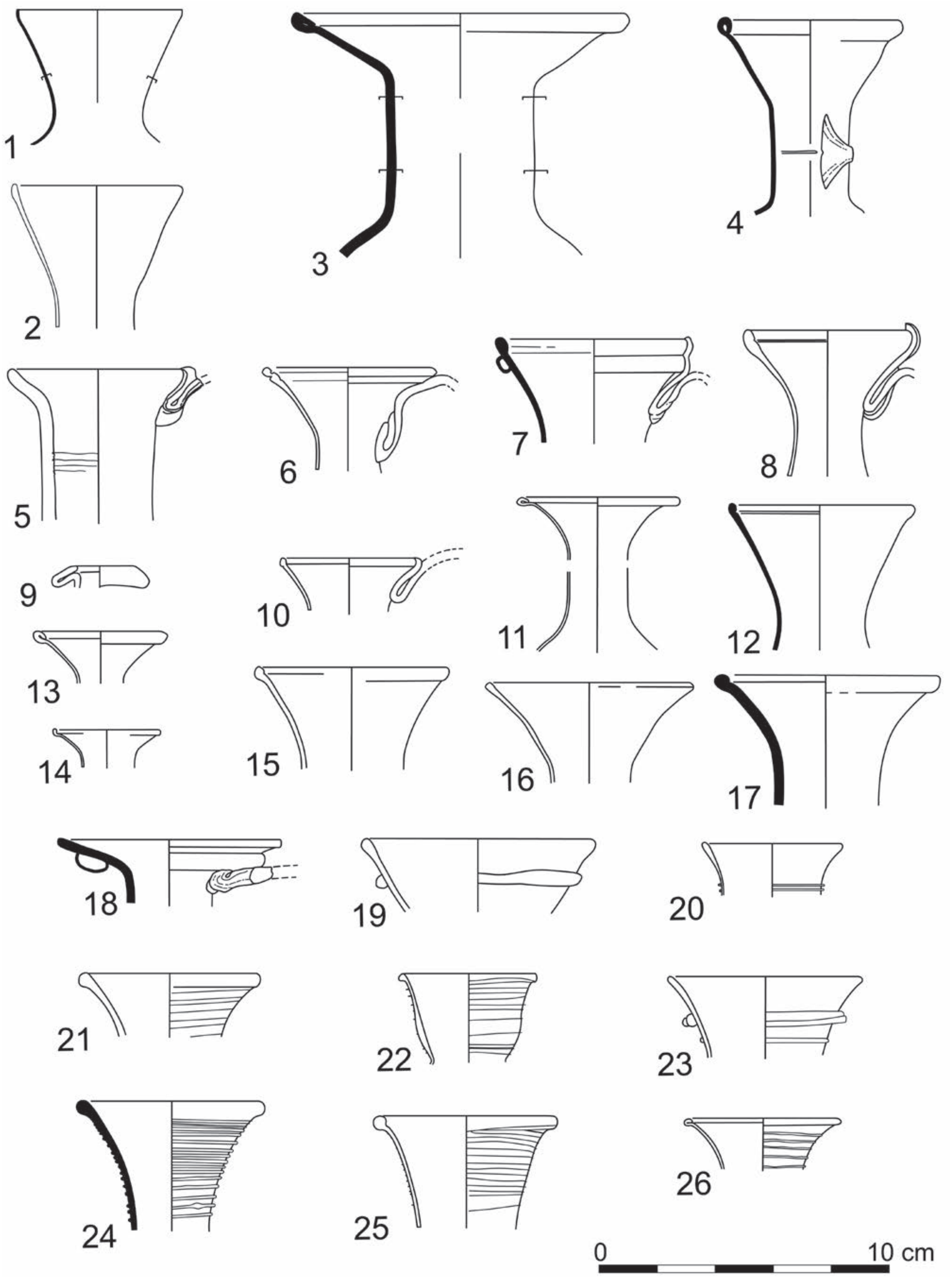
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Figure 9.13. Jugs and flasks (catalogue section VIII)

irregular thick turquoise trail. Context 5629. Triconch Room 16 (courtyard). Phase 5/6.

20 Flask neck with fine over lapping trail. Colourless glass, no bubbles. Context 3127. Merchant's House Room 45. Phase 14/15.

21 Flaring folded-in rim with thin self-coloured spiral trail running right to left down the neck. Green glass, no weathering. Context 5079. Triconch Room 19 (south wing). Phase 6.

22 Neck of a flask with a fine, light translucent blue coloured trail. Colourless glass with a faint yellow tint, silver weathering. Context 5100. Triconch Room 18 (long gallery). Phase 9.

23 Flaring rim with one overlapping thick and one thin self-coloured trail. Green tinted glass with thin silver weathering. Context 5400. Triconch Room 16 (courtyard). Phase 9.

24 Funnel neck with a thick self-coloured trail on the rim edge and a fine spiral trail below, getting thicker towards the bottom. Sage-green glass with occasional bubbles, no weathering. Context 3280. Triconch Room 30 (west wing) Phase 9/10?

25 Flaring jug or flask neck. Thick dark blue overlapping trail applied around rim edge; fine paler blue spiral trail, top left to bottom right, down neck. Pale green glass with a few yellowish areas, surfaces slightly matt. Context 4056. Merchant's House Room 37. Phase 6.

26 Flask or bottle, flaring rim with a fine self-coloured spiral trail turning top left to bottom right. Pale green glass with brown leaden weathering. Context 1223. Triconch Room 17 (north wing). Phase 4.

IX. Decorated glass (Fig. 9.14)

MOULD-BLOWN DECORATION

1 Small mould-blown wall fragment, repeating hexagons. Near colourless glass, few small bubbles, thin matt weathering. Context 4038. Merchant's House Room 47. Phase 6.

A similar decorative style can be seen on mould patterns at the 11th-century shipwreck at Serçe Limani (Bass 2004, fig 3-1 and 3-2) and on Iranian mould-blown vessels ranging from 6th to 13th century (Lamm 1935, plates 21, 22, and 23).

2 Wall and shoulder or, more probably, base of a mould-blown bottle. Mid-blue glass with dull surfaces. Context 5400. Triconch Room 16 (courtyard). Phase 9.

3 Wall fragment from a mould-blown vessel. Colourless glass, silver and brown mottled weathering. Context 1008. Triconch Room 10 (to north of *triclinium*). Phase 2.

4 Flattish wall fragment with random honeycomb decoration. Yellow glass. Context 3336. Room 22. Unphased.

5 Base of a dip mould-blown vessel with shallow vertical ribs radiating from near the basal edge, pontil scar. Yellow glass with occasional very small bubbles, matt silver weathering. Context 5199. Triconch Room 22 (south wing). Phase 5.

Parallels are seen on an Islamic vessel, a medieval glass from the Middle East, and at Amorium (3rd to 4th century), Fustat (8th to 9th century), Nishapur (9th to 10th century), and Samarra (Kröger 1984, cat. no. 66; Lamm 1930, taf. 9; Gill 2002, 77 fig. 1/21:318; Scanlon and Pinder-Wilson 2001, 69 fig. 35-a; Kröger 1995, 87 no. 114; Lamm 1928, 43, fig. 28, 44, fig. 31).

6 Base of a dip mould-blown vessel with shallow ribs radiating vertically from the basal edge. Green glass. Context 3325. Triconch Room 30 (west wing). Phase 9/10.

See no. 5 for remarks.

7 Sherd from a mould-blown hollow ware. Good-quality colourless glass with thin opaque white weathering. Context 5399. Triconch Room 16 (courtyard). Phase 12/13.

APPLIED AND INDENTED DECORATION

8 Shoulder from a flask or bottle with applied trailed decoration partly melted in. Good-quality colourless glass. Context 3339. Triconch Room 26 (west wing). Phase 5.

9 Base from an indented folded beaker, with six folds. Green glass. Context 3414. Triconch Room 26 (west wing). Phase 5.

This is the comparable to Isings Form 32. Isings cites Roman examples of this form from the 1st to the 6th century, though most are earlier (Isings 1957, 46–7). Many parallels can be seen throughout the eastern Mediterranean, predominately dating from the end of the 1st to 2nd century (Ravagnam 1994).

10 Fragment of colourless glass with applied teardrop decoration. Context 2088. Merchant's House Room 39 (courtyard). Phase 14/15.

CUT DECORATION

11 Wall fragment from the lower side of a bowl. Conjoining zones of short horizontal cut lines resembling a petal-like pattern. Good-quality colourless glass. Context 3339. Triconch Room 26 (west wing). Phase 5.

12 Cracked-off rim bowl with cut decoration on the lower wall. Well-ground rim edge; short individual leaf-shaped cut motifs projecting from a central stem. Very good-quality colourless glass, no bubbles in the surviving fragment. Context 3264. Triconch Room 26 (west wing). Phase 6.

A similar scratched leaf pattern was discovered at Karanis, Egypt (early 2nd to early 3rd century (Harden 1936, pl. 16 no. 430)).

13 Hemispherical bowl, rim probably cracked-off and the edge ground to a curve. Three deep-cut grooves below the rim edge. The high-quality well-executed design comprises the side of the head of a figure beneath an arch supported by a capital and a diagonal-cut column.

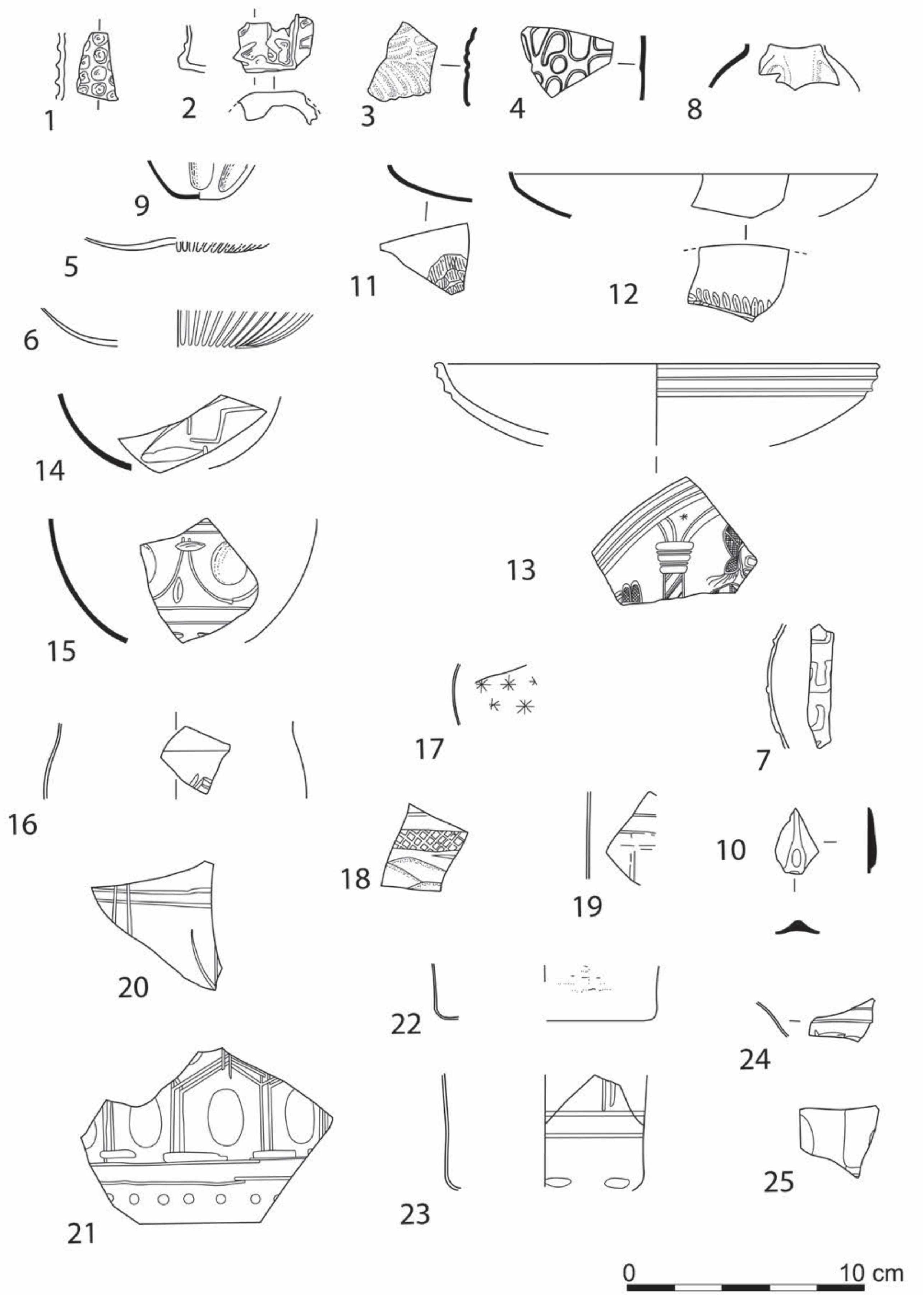
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Figure 9.14. Decorated glass (catalogue section IX)

Context 4056. Merchant's House Room 37. Phase 6 (Plate. 9.2).

This fragment is certainly one of the most interesting in the collection. The diagonal-cut column within the design is reminiscent of a late antique style of column, sometimes referred to as 'Solomonic' (Ward-Perkins 1952). Fabrizio Paolucci has identified glass vessels dating from the 4th to early 5th century that contain cut decoration of the same quality and very similar style (figures, architectural settings), some of which he has attributed to the work of the 'Vicennalia Master', the engraver of a fragmentary dish in the Antiquarium Comunale at Rome (Paolucci 1997, 165–8; Paolucci 2002, 52 fig. 76a-b; Harden 1988, 223–4 cat. 124). No other close parallels have been identified and it is very likely to have originated in Rome, probably between the 4th and 6th century.

14 Lower body of a globular flask or bottle. Irregular shallow-cut decoration. Colourless glass. Context 1300. Triconch Room 24 (reception room). Phase 7.

15 Wall fragment with cut design; oval facets and linear motifs. Pale green good-quality glass, no weathering. Context 2051. Merchant's House (topsoil). Phase 15. A parallel can be seen at Sardis on a vessel imported from the Syrian-Palestinian coast, probably 2nd to 3rd century (Saldern 1980, 16-17, plate 20 nos 70–72).

16 Wall fragment, cut line decoration. Glass has a faint green tint and thin silver weathering. Context 1111. Triconch Room 10 (to north of *triclinium*). Phase 3.

17 Wall fragment with lines of star motifs made from four cuts. Pale green glass, no bubbles, no weathering. Context 5364. Triconch Room 29 (west wing). Phase 6.

18 Wall fragment, zones of thin-cut criss-cross lines and facet-cut motifs. Very thin, good-quality colourless glass, thin iridescence. Context 3259. Context 3259. Triconch Room 27 (west wing). Unphased.

Similar cut patterns have been identified at Rayy or Saveh (second half of the 9th century) and late Roman Palestine (4th century) (Lamm 1935, plate 39.I; Weinberg 1988, 101 fig. 4-53 no. 518 a and b).

19 Fragment with very shallow-cut linear decoration. Colourless glass with a faint yellow tint, iridescence. Context 5074. Triconch Room 18 (long gallery). Phase 6.

20 Cylindrical body fragment, probably from a bottle. Shallow-cut linear decoration. Sage-green glass. Context 1300. Triconch Room 24 (reception room). Phase 7.

21 Flask or bottle lower body with shallow-cut design of hexagons with central ovals. Light green glass, occasional very small bubbles, silver weathering. Context 5368. Triconch Room 23 (south wing). Phase 4/5.

Similar cut designs can be seen on vessels recovered from the eastern Mediterranean (late 3rd to 4th century), Egypt (*c*. 4th century), Syria (late 2nd to early 3rd century) (Saldern 1980, 86–7 cat. 81; Smith 1957, no. 378; Clairmont 1963, pl. 27 no. 275).

22 Lower body wall with basal edge and several small fragments, abraded decoration. Yellow glass with no bubbles. Context 4056. Merchant's House Room 37. Phase 6.

23 Lower body of a cylindrical bottle. Spaced shallow-cut ovals around the base edge, two spaced horizontal lines below cut motifs. Context 5629. Triconch Room 16 (courtyard). Phase 5/6.

24 Wall fragment from just below the rim of a possible bowl. Shallow-cut groove decoration. Good-quality colourless glass, iridescence. Context 4051. Merchant's House Room 39 (courtyard). Phase 8.

25 Wall fragment with shallow-cut decoration. Nearly colourless glass with thin silver weathering. Context 5139. Triconch Room 18 (long gallery). Phase 7.

X Fragments

INTURNED CUP/BEAKER RIMS, JARS AND BOWLS (FIG. 9.15)

1 Inturned jar or bowl rim. Bright blue/green glass. Context 1274. Triconch Room 18 (long gallery). Phase 9.

2 Jar or cup/beaker. Inturned, fire-rounded rim with thin contrasting coloured trail marvered into vessel wall. Pale green glass with few very small bubbles, thin light blue trail, no weathering. Context 5551. Triconch Room 19 (south wing). Phase 6.

3 Inturned fire-rounded rim of a jar or cup/beaker. Nearly colourless glass with a light green tint, thin matt off-white weathering. Context 3117. Merchant's House Room 39 (courtyard). Phase 8.

4 Probable beaker rim, slightly inward sloping. Unusual dark greyish green glass, occasional seed bubbles, no weathering. Possibly medieval but probably residual. Context 2050. Triconch Room 16 (courtyard). Phase 15.

5 Slightly inturned rim. Very pale blue glass with thin matt silver weathering. Context 4038 (2002). Merchant's House Room 47. Phase 6.

6 Large flaring rim from a jar with a globular body. Good-quality colourless glass, silver weathering. Context 1422. Triconch Room 26 (west wing). Phase 7.

7 Jar or beaker. Very pale green glass. Context 1740. Triconch Room 18 (long gallery). Phase 8.

8 Everted jar rim with fine spiral trail below rim edge and additional trail on shoulder. Green glass with matt red trails. Context 3044. Merchant's House Room 45. Phase 14/15. Unphased.

9 Jar. Green tinted glass with matt silver and patched dark leaden weathering. Context 5494. Triconch Room 31 (west wing). Phase 6/7.

10 Slightly everted jar rim. Pale blue/green glass, slightly dull surfaces. Context 5364. Triconch Room 29 (west wing). Phase 6.

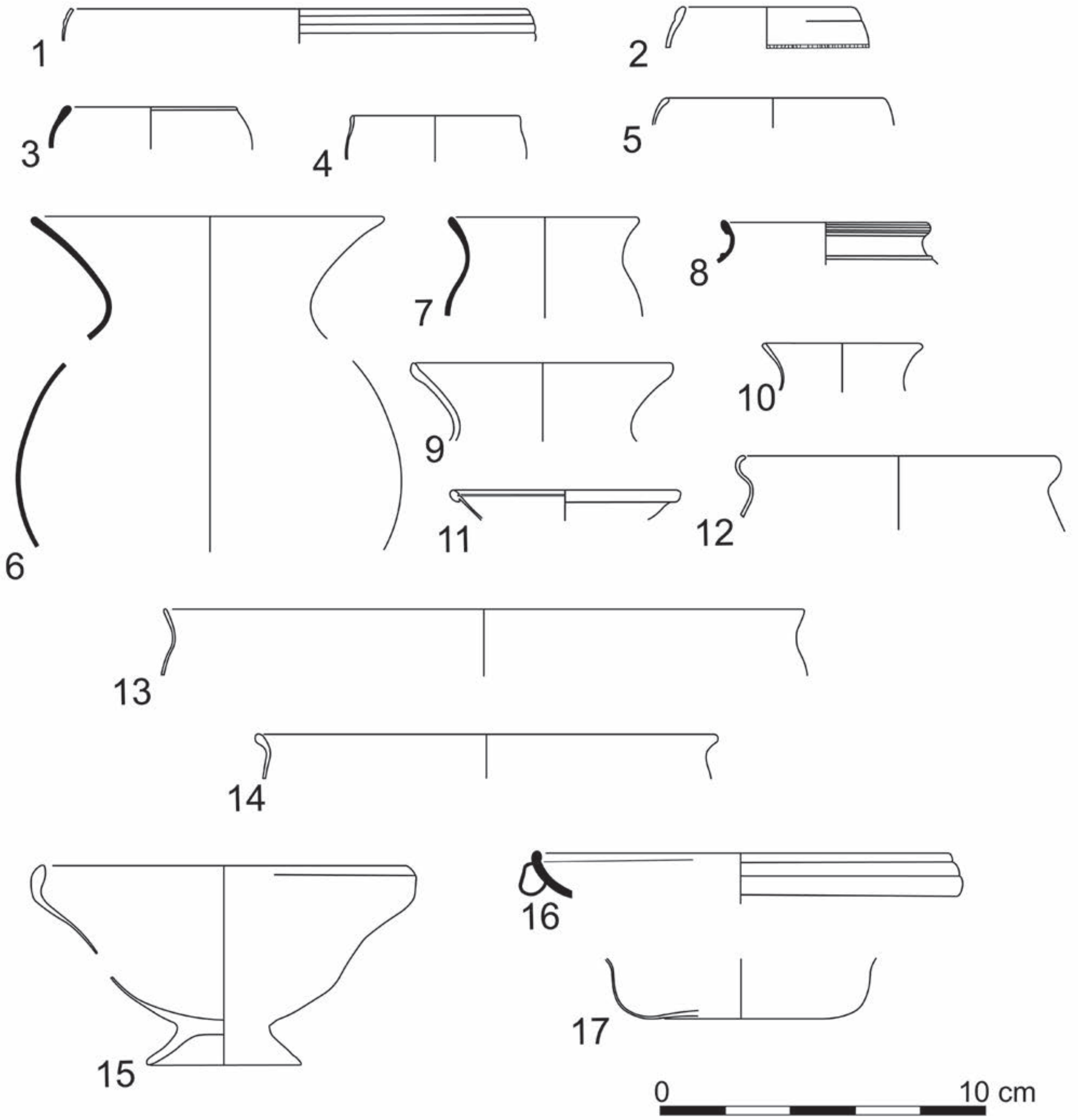

Figure 9.15. Inturned cup/beaker rims, jars and bowls (catalogue section X)

11 Jar with a rolled-in rim, flattened on the inner side. Pale yellow glass, silver and matt leaden weathering. Context 5071. Triconch Room 18 (long gallery). Phase 9.

12 Cracked-off rim jar with unusually sharply curved rim. Colourless glass with no weathering. Context 5629. Triconch Room 16 (courtyard). Phase 5/6.

13 Wide-mouthed bowl. Nearly colourless glass with no bubbles, slight iridescence. Context 3042. Triconch Room 16 (courtyard). Phase 4.

14 Wide-mouth jar. Colourless glass with a very faint grey tint. Context 3087. Merchants House Room 37. Phase 14/15.

15 Collar rim bowl with pedestal base, six fragments. Peacock-blue glass, silver weathering. Context 5635 Triconch Room 19 (south wing). Phase 6 and Context 5014. Triconch Room 23 (south wing). Phase 7.

16 Bowl with single applied tooled trail below rim edge. Green glass, thin matt white weathering. Context 1111. Triconch Room 10 (to north of *triclinium*). Phase 3.

17 Body of a bowl. Light blue glass, some small bubbles, silver and thin leaden weathering. Context 5625. Triconch Room 19 (south wing). Phase 6.

NECKS AND HANDLES (FIG. 9.16)

1 Long cylindrical neck with wide-spaced trail on upper part of neck. Green/blue glass with mid-blue trail. Context 2011. Triconch Room 36 (bath-house). Unphased.

2 Neck and shoulder from a flask. Faint, light green tinted glass, silver and brown leaden weathering. Context 5550. Triconch Room 20 (south wing). Phase 10.

3 Long, slightly flaring neck. Colourless glass. Context 3407. Triconch Room 30 (west wing). Phase 9.

4 Bottle neck, rim missing. Light green glass with very occasional seed bubbles, slightly dull surfaces. Context 1112. Triconch Room 14 (north wing). Phase 15.

5 Neck and shoulder of a flask. Yellow glass, thin iridescence. Context 1133. Triconch Room 14 (north wing). Phase 8.

6 Carboy neck. Large neck tapering towards the rim, now missing. Very pale green glass covered with thick silver and matt white weathering. Context 5629. Triconch Room 16 (courtyard). Phase 5/6.

7 Two joining neck/shoulder fragments from a large carboy-like vessel. Green glass with very occasional small bubbles, patchy thin leaden weathering. Context 5302. Triconch Room 23 (south wing). Phase 5.

8 Pronounced three rib handle of bluish-green glass. Context 5014. Triconch Room 23 (south wing). Phase 7.

9 Wide, faintly ribbed handle from the shoulder of a square or hexagonal bottle. Blue/green glass, thin matt silver weathering. Context 5572. Triconch Room 31 (west wing). Phase 6.

10 Lower part of a wide flat handle. Green glass, mottled weathering. Context 5364. Triconch Room 29 (west wing). Phase 6.

11 Upper part of a wishbone handle. Light green glass with thin silver weathering. Context 3027. Triconch Room 16 (courtyard) Phase 4.

BASES (FIG. 9.17)

1 Domed base from a cylindrical vessel, pontil scar. Green glass, slight iridescence. Context 5006. Triconch Room 23 (south wing). Phase 8.

2 Domed base, pushed in with a point. No evidence for a pontil scar. Pale yellowish-green glass, silver and leaden brown weathering. Context 1133. Triconch Room 14 (north wing). Phase 8.

3 Thickened base, ring pontil mark. Colourless glass with occasional large bubbles, thin silver weathering. Context 3127. Phase 14/15.

4 Domed base with pontil scar, possibly from a beaker. Very pale green glass. Topsoil. Unphased.

5 Base with applied thin trail. Centre of base irregular but no evidence for a pontil scar; opaque bright turquoise overlapping trail around edge, uneven in thickness. Context 1110. Triconch Room 10 (to north of *triclinium*). Phase 3.

6 Pedestal base formed by four turns of a spiral trail. Vessel body is of yellow-green glass, trail base of green glass. Context 5074. Triconch Room 18 (long gallery). Phase 6.

This type of base is popular, both in site and period of. Parallels include those found at Palatino, Moravia (1500–60), the Bagawat Necropolis, Kharga Oasis, Egypt (Sternini 2001, 69 fig. 20; Sedláčková 2006, 222 fig. 12.2; Nenna 2010, fig. 11 cat. 58).

7 Foot ring formed by a thick applied trail, flattened. Glass with a yellowish-brown tint, occasional small bubbles, golden weathering. Context 3090. Merchant's House Room 37. Phase 8.

8 Foot ring formed by an applied trail, slightly variable in thickness. Glass with a yellowish-green tint and many small bubbles, silver and leaden weathering. Context 3090. Merchant's House Room 37. Phase 8.

9 Base with a tall added foot ring. The vessel wall appears to have been grozed around the broken edge, possibly for re-use as a lid. Wear marks on the inner base ring. Greenish-yellow glass, no weathering. Context 3107. Triconch Room 16 (courtyard) Phase 3.

Similar forms are seen at El-Ashmunein (5th to 8th century), Sardis and Karanis (Spencer *et al.* 1983, pl. 93. Y33, Y34, and Y35; Saldern 1980, pl. 25, 463, and 465; Harden 1936, pl. XII).

10 Base with added foot ring. Near-colourless glass with faint light green tint, silver weathering. Context 5575. Triconch Room 31 (west wing). Phase 4.

See no. 9 for remarks.

11 Base with tall added foot ring. Very pale green glass. Context 3127. Merchant's House Room 45. Phase 14/15.

See no. 9 for remarks.

12 Folded foot ring base, pushed in with a point, pontil scar. Green glass, slight iridescence. Context 5074. Triconch Room 18 (long gallery). Phase 6.

13 Folded pedestal base, no evidence for a pontil scar. Slightly opaque greyish green glass, matt surfaces. Context 5074. Triconch Room 18 (long gallery). Phase 6.

14 Small domed base with a folded foot ring. Very pale green glass. Context 3076. Merchant's House Room 39 (courtyard). Phase 14/15.

15 Folded foot ring base. Pushed in with a point, no pontil scar. Bright blue/green glass. Context 1227. Triconch Room 17 (north wing). Phase 3.

16 Folded foot ring base, ring pontil scar. Pale bluish-green glass with a milky white streak across the base, matt surfaces. Context 1271. Triconch Room 17 (north wing). Unphased.

17 Folded pedestal base. Yellow glass, leaden weathering. Context 5635. Triconch Room 19 (south wing). Phase 6.

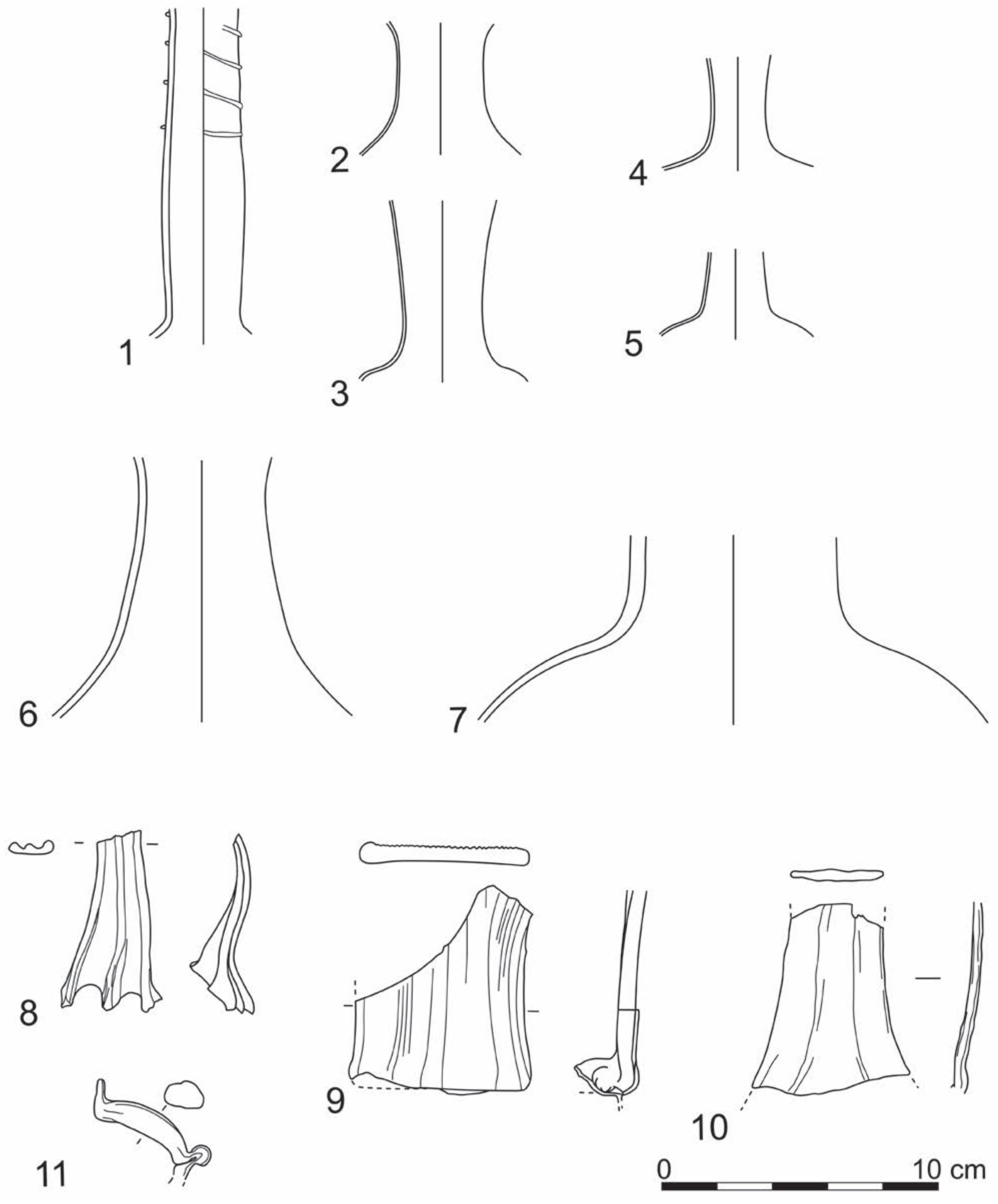

Figure 9.16. Necks and handles (catalogue section X)

18 Small folded foot ring base, solid pontil scar. Nearly colourless glass with a greenish tint. Context 2066. Merchant's House (outside city wall). Phase 14/15.

19 Small folded foot ring base, no evidence for a pontil scar. Colourless glass, silver matt weathering. Context 1111. Triconch Room 10 (to north of *triclinium*). Phase 3.

20 Base with self-coloured, applied spiral trail, probably

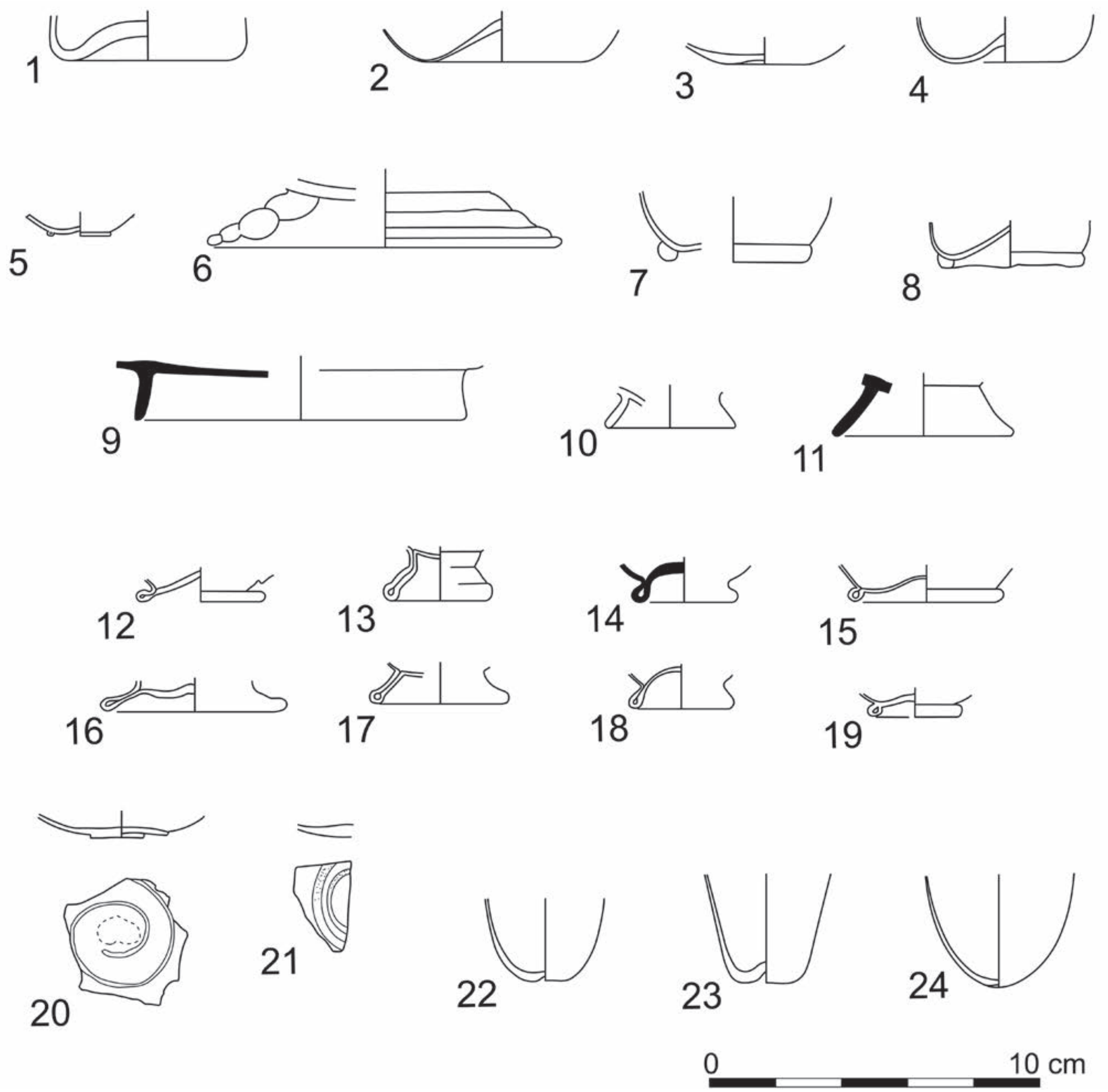

Figure 9.17. Bases (catalogue section X)

ending at the basal edge. Pontil scar. Peacock-green glass, thin iridescent weathering. Context 1114. Triconch Room 14 (north wing). Phase 15.

21 Plain base with partly marvered-in spiral trail. Colourless glass with mid-blue transparent trail. Context 2088. Merchant's House Room 39 (courtyard). Phase 14/15.

22 Lower part of a small bottle or flask. Slightly indented base with part of a wider ring pontil scar. Light green glass, mottled matt fawn and brown weathering. Context 5571. Triconch Room 31 (west wing). Phase 6.

23 Narrow bottle or flask base. Base pushed in with jacks point, no evidence for a pontil scar. Green-tinted glass, thin matt silver weathering. Context 5399. Triconch Room 16 (courtyard). Phase 12/13.

24 Egg-shaped base with small solid pontil scar. Green-tinted glass, one large bubble, and patches of silver weathering. Context 5079. Triconch Room 19 (south wing). Phase 6.

MISCELLANEOUS FRAGMENTS (FIG. 9.18)

1 Spout, attached to vessel wall. Blue/green glass with numerous large bubbles. Context 1114. Triconch (north wing). Phase 15.

2 Rim, possibly from an inkwell. Blue/green glass. Context 1422. Triconch Room 26 (west wing). Phase 7.

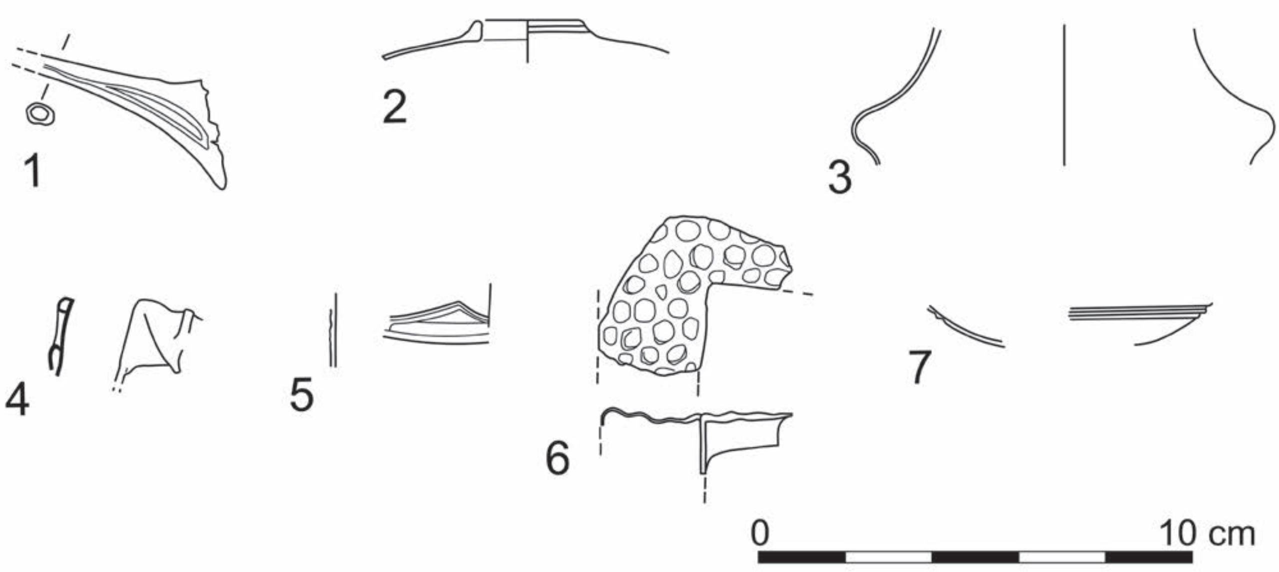

Figure 9.18. Miscellaneous fragments (catalogue section X)

If this fragment is from an inkwell, it would correspond with Isings Form 77 (Isings 1957, 93).

3 Body fragment. Pale yellow glass with a few seed bubbles, silver weathering. Context 3090. Merchant's House Room 37. Phase 8.

4 Wall with applied self-coloured zigzag trail. Yellow glass with a greenish tint, iridescence. Context 5001. Triconch Room 19 (south wing). Unphased.

5 Wall fragment with self-coloured applied decoration. Deep peacock-blue glass, slight iridescence. Context 2090. Merchant's House Room 40. Phase 14/15.

6 Mould-blown with sub-circular indentations, unusual fragment with two plain sides inturned at a right angle. Light yellowish-green glass, slight iridescence. Context 3090. Merchant's House Room 37. Phase 8.

7 Curved wall fragment with shallow-cut decoration. Colourless glass, matt surfaces. Context 4094. Merchant's House Room 43. Phase 8.

XI. Medieval vessels (Fig. 9.19)

1 Folded-in flask rim. Light green glass, thin silver weathering. Context 5399. Triconch Room 16 (courtyard). Phase 12/13.

2 Beaker rim. Green-tinted glass, no weathering. Context 5399. Triconch Room 16 (courtyard). Phase 12/13.

3 Jar or flask rim. Green glass, no weathering. Context 5361. Triconch Room 16 (courtyard). Phase 12/13.

4 Small inturned rim neck and associated base fragment. The base has an applied self-coloured trail design. Unusual mid-peacock-blue glass, very small bubbles, no weathering. Context 5276. Triconch Room 16 (courtyard). Phase 14/15.

5 Short flaring neck. Colourless glass. Context 2084. Merchant's House Room 39 (courtyard). Phase 14/15.

6 Small flask or phial neck. Nearly colourless glass with a few tiny bubbles, matt off-white weathering. Context 3059. Merchant's House Room 39 (courtyard). Phase 14a.

7 Slightly flaring neck from a small bottle. Grey-green glass with patchy dark brown weathering. Context 5322. Triconch Room 16 (courtyard). Phase 12/13.

8 Long neck with a flaring fire-rounded rim. Greenish-blue glass, thin matt silver weathering. Context 1185. Triconch Room 17 (north wing). Phase 14.

9 Funnel neck with self-coloured trail. Part of trail now missing but probably spiralling down the neck from top left to bottom right. Yellow glass with a few very small bubbles, patchy leaden weathering. Context 1114. Triconch (north wing). Phase 15.

10 Small neck with a bulge near the bottom, contrasting coloured trail on rim edge. Glass has a faint blue/green tint, trail mid-blue. Context 1553. Triconch Room 16 (courtyard). Phase 14.

11 Shoulder and wall from a bottle, purple glass with eight surviving turns of an opaque white trail pulled upwards at intervals; trail marvered, but slightly proud of the surface. Dark brown leaden weathering. Context 1185. Triconch Room 17 (north wing). Phase 14.
Parallels are found as early as the 1st and 2nd century to well into the Middle Ages (Clairmont 1963, pl. 19 nos 39, 40; Križanac 2001, 30 figs 9 and 10; 31 figs 11 and 12).

12 Applied prunt. Nearly colourless glass. Context 2059. Merchant's House Room 39 (courtyard). Phase 14/15.

13 Flask, flaring rolled-in rim, tooled flat. Nearly colourless glass, iridescence. Context 3048. Triconch Room 16 (courtyard). Phase 9–10.

14 Flange rim from a flask. Sage-green glass, small patches thin brown weathering. Context 5322. Triconch Room 16 (courtyard). Phase 12/13.

15 Junction of the bottom of the body and top of the base

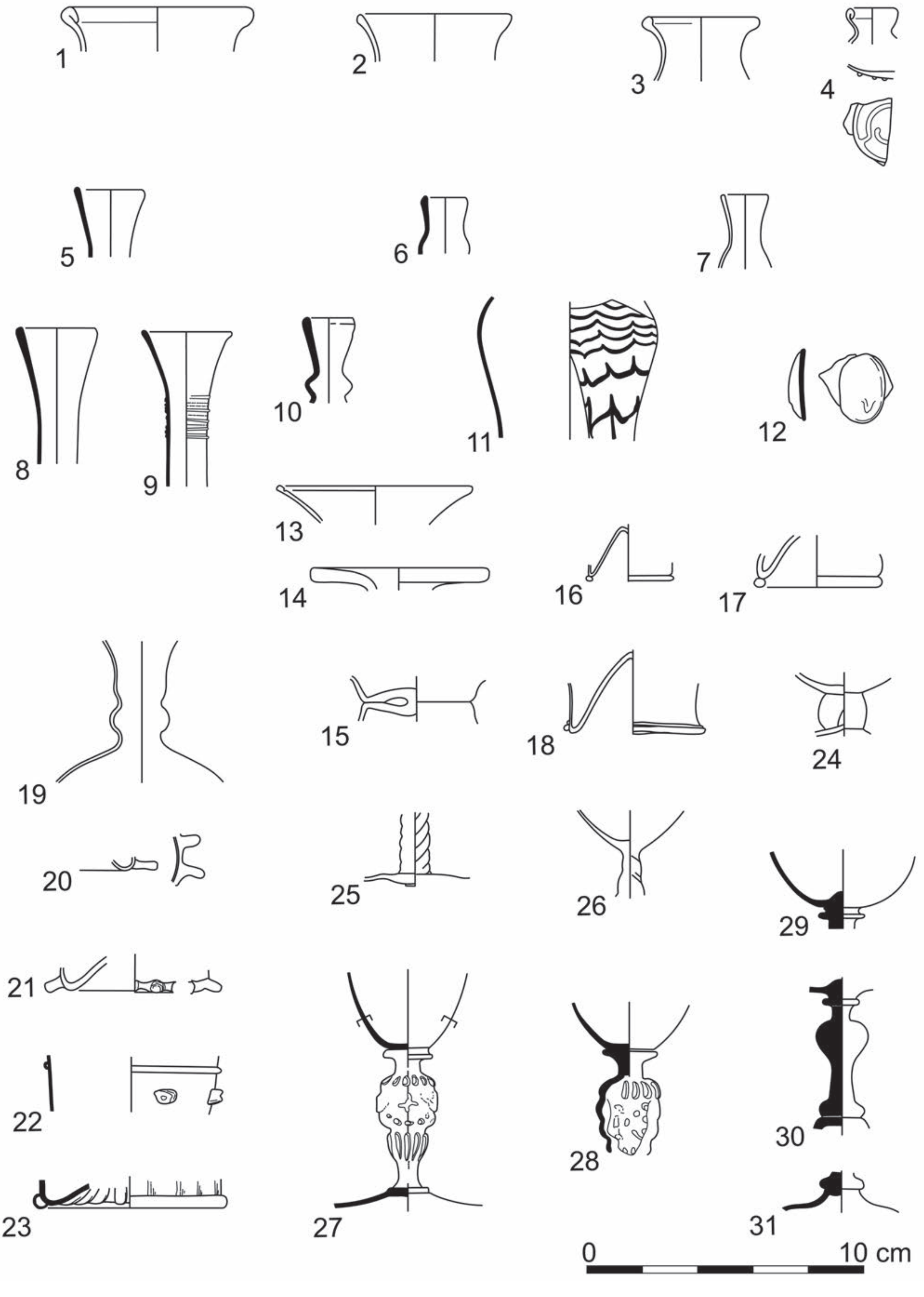
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Figure 9.19. Medieval vessels (catalogue section XI)

formed by folding the wall inwards, the solid pontil scar completes the seal. Green glass with few bubbles, thin silver weathering. Context 4033. Merchant's House Room 41/44. Phase 6.

A parallel has been identified at Rougiers dating from the 7th to 8th century (Foy 1989, 196, fig. 41 nos 11, 12, 13).

16 Base with a high pointed kick and self-coloured trail around base edge. Context 2090. Merchant's House Room 40. Phase 14/15.

17 Domed base with self-coloured trail around base edge. Near colourless glass with a faint pinkish-grey tinge. Context 2088. Merchant's House Room 39 (courtyard). Phase 14/15.

18 Beaker with a high kick base and two overlapping trails added to the base edge. Colourless glass with a faint greenish tint, thin leaden weathering. Triconch. Unstrat.

19 Neck and shoulder of a flask or bottle. Green glass with many tiny bubbles, silver weathering. Context 4168. Merchant's House Room 38. Phase 13.

20 Base edge with thick added self-coloured trail with projecting toes. Good-quality colourless glass. Context 1114. Triconch (north wing). Phase 15.

'Projecting toes' are a common decorative form in European and Mediterranean glass. Some sample parallels include vessels found at Veličani, Yugoslavia (14th century), Moravia (13th to 15th century), and Italy (12th to 13th century) (Kojić and Wenzel 1967, 77 fig. 4; Sedláčková 2006, 196 fig. 3.7; 201 fig. 4.18; 206 fig. 5.9 and 5.11; 211 fig. 7.3; 217 fig. 10.11; Harden 1966; 73–4 cat. 4).

21 Two wall fragments and a base edge from a beaker with applied trail and projecting toes. Colourless glass with a greyish tinge, no weathering. Context 1574. Triconch Room 18 (long gallery). Phase 15.

See no. 20 for remarks.

22 Wall fragment from a beaker, self-coloured applied trail and prunt. Colourless glass with very few bubbles, thin silver weathering. Context 2088. Merchant's House Room 39 (courtyard). Phase 14/15.

Several parallels can be seen in Moravia, dating from the 13th to 15th century (Sedláčková 2006, 215 fig. 9.1-6; 211 fig. 7.10; 208-9 fig. 6.1-5; 206-7 fig. 5.9-14; 200 fig. 4.4-6).

23 Base from beaker blown in a dip mould, faint vertical fluting, applied trail around base edge. Colourless glass with faint grey tint. Context 3015. Merchant's House. Phase 15.

24 Knop stem from a wine glass with an added bowl. Colourless glass with a greyish tint, no weathering. Context 5301. Triconch Room 16 (courtyard). Phase 12/13.

25 Wine glass, spiral twisted stem added to bottom of the bowl. Bluish-green glass with slight iridescence. Context 5265. Triconch Room 16 (courtyard). Phase 15.

This form is typical type occurring in Rome and Carthage, predominately the late 5th–7th century (Fünfschilling 2009, 147 fig. 3.7).

26 Wine glass, twisted stem and lower part of bowl, made from one parison. Light blue transparent glass, mottled silver weathering. Context 5265. Triconch Room 16 (courtyard). Phase 15.

See no. 25 for remarks.

27 Wine glass with a mould-blown lion mask stem, bowl and base added. Colourless glass, thick mottled weathering. Context 2074. Merchant's House Room 45. Phase 14/15 (Plate 9.3).

Similar vessels are found in Spain (mid- to late 16th century) and from the Gnalić wreck, Croatia (16th century) (Page and Doménech 2004, 121–2; Lazar and Willmott 2009, 334 fig. 1.S7a-S7e).

28 Wine glass with a mould-blown lion mask stem, bowl and base added. Similar to no. 27, but slightly different 'collar' at the base of the bowl. Colourless glass, thick mottled weathering. Context 2055. Merchant's House Room 45. Phase 14/15 (Plate. 9.3).

See no. 27 for remarks.

29 Wine glass, lower bowl and added stem. Colourless glass. Context 3065. Merchant's House Room 39 (courtyard). Phase 14 (Plate. 9.4).

A parallel has been recovered from the 16th-century Gnalić wreck (Lazar and Willmott 2009, 334 fig.1.S4a and b).

30 Wine glass, stem and beginning of added bowl. Near colourless glass with faint grey green tinge. Context 2069. Merchant's House Room 39 (courtyard). Phase 14/15 (Plate. 9.4).

Similar forms include those seen at El Catllar Tarragona, Spain (16th century) and the Gnalić wreck (16th century) (Medici 2009, 346, fig. 4.36–37; Lazar and Willmott 2009, 334, fig.1.S4a and b).

31 Wine glass, foot and beginning of added stem. Colourless glass. Context 2087. Merchant's House Room 40. Phase 14/15 (Plate. 9.4).

See no. 30 for remarks.

Note

1 The glass was recorded and drawn on site by Sarah Jennings, who commenced this report prior to her sudden and untimely death in 2009, at which point she had completed the catalogue and sketched out some elements of a narrative commentary. The catalogue with some additional comments from KS, together with some additional phasing analysis by WB, is presented here. It is hoped that future research will allow a fuller discussion of the Triconch Palace glass in the context of all the Butrint glass assemblages.

10 The Triconch Palace and Merchant's House as lived environments in late antiquity

William Bowden

What does the material presented in the preceding chapters actually tell us about human experience at Butrint during the period from the 3rd to the 7th century? This chapter will attempt to contextualise the different types of evidence in relation to the late antique Triconch Palace and Butrint as a whole, while Chapter 11 will attempt the same for the period from the 7th to the 16th century.

As noted in the Introduction, although the title of this volume and the accompanying volume on the excavated sequences emphasises the Triconch Palace itself, almost all the material presented in this volume post-dates the period of the high-status *domus*. Much of it, in fact, belongs to phases of less-grandiose domestic occupation that start in the 5th century, followed by progressive use of the area as a quarry, rubbish dump, graveyard, and industrial area through the 6th century, culminating in (temporary) abandonment from the mid-7th century. It is perhaps anachronistic to continue to refer to the different parts of the excavation area as the Triconch Palace and Merchant's House area (and indeed the latter name is questionable for any period), after the form and function of the buildings had dramatically changed. However, it is clear that the layout of the late Roman buildings continued to shape the ways in which the area was used, even when those buildings had been levelled almost to their foundations. This sense of continuity in terms of spatial organisation is reinforced by the distribution of some of the finds, as will be seen below, and indeed continues in the later Middle Ages as will be seen in the following chapter.

Rather than summarising the material by category, it will be examined in broad phases, highlighting particular aspects of interest and attempting to draw connections where possible. The material is often not closely dated enough to be tied to the individual occupation phases outlined in the excavation report and there are obvious problems relating to the potential time lag between the period of use of material and the point at which it was deposited. Issues also arise from the post-depositional movement of material that has clearly taken place at the triconch site since the late Roman period. Furthermore, the quantities of excavated deposits vary between phases and rooms. Some rooms were only sampled, while others were excavated to the level of the *domus* floors or lower, although the high ground water meant that none were excavated to the natural geology. The entire east end of the complex, meanwhile, was cleared by earlier excavations that left only small areas of surviving stratigraphy. Therefore, comparison between different phases and different areas of the site can only ever be impressionistic and speculative. Nonetheless, viewed in totality, the materials from the site give a striking picture of the changing use of this area of Butrint, and an insight into the lives of those who are otherwise invisible amongst the more impressive remains of the built environment that draw the attention of visitors to the site today.

The *domus* and Triconch Palace (pre-AD 425: Phases 1 to 4)

Despite the extensive structural remains of this period (Figs 1.6, 1.7) (Bowden *et al.* 2011c), the archaeological evidence provides little information relating to the occupation of the building in its primary phases. Interpretation of the buildings is heavily reliant on the contemporary textual and graphic sources that paint a vivid picture of the domestic lives of the late Roman aristocracy and the furnishings and décor of their houses (Bowden 2011a).

The luxurious life of the late Roman aristocratic family and their household is hard to discern from the surviving remains of the Triconch Palace. There are a few hints of some aspects of decoration and architectural sculpture that mainly occur in later assemblages, as well as the mosaics described by John Mitchell (2011a). A fragment of the decorated front of a *stibadium* was found beneath the later peristyle mosaic (Stone cat. 34), and two fragments of possible *sigma* tables were found in late 5th-century (Phase 6) contexts in the Merchant's House (Stone cat. nos 35–6). Further indications as to the apparent opulence of the building come from fragments of multi-coloured marble veneers that were recovered from several contexts but particularly from Room 37 of the Merchant's House, which produced over 13 kg of veneers (Stone cat. nos 71–101) including one fragment that had been painted to enhance it (Stone cat. 101; Plate 8.6). The veneers included Carystian green (*cipollino*) marble, Thessalian green (*verde antico*), *pavonazetto*, porphyry, *rosso antico,* Proconnesian and various other white and grey-white marbles. It is possible that the *sigma* table fragments, at least, derive from the Triconch Palace along with the marble veneers, but their stratigraphic position indicates that they remained in use later (see below). Further veneers, deriving from buildings demolished prior to the construction of the Triconch Palace, were noted in deposits beneath Rooms 10 and 17 (Gilkes and Lako 2003, 155), as well as a copper alloy veneer clamp (Cu alloy cat. 137). Architectural fragments, including marble door pieces and cornice mouldings from across the triconch area (Stone cat. nos 59–70) may also relate to the *domus*, as may two Roman statue fragments (possibly from the same draped figure) from an early 5th-century (Phase 5) context in Room 23 (Stone cat. nos 1–2), and a cylindrical fragment (possibly from the naked arm of a figure) from a late medieval context over the Merchant's House (Stone cat. 3).

The most impressive architectural sculptural elements from the building are the fragments of four stone windows (Stone cat. 37), found in a drain running along the front of the east portico and assumed to come from the façade of the triconch *triclinium* (Bowden *et al.* 2011c, 41). Two of these windows featured *chi-rho* monograms in the lunettes, with the Christian symbols performing an apotropaic function to repel evil spirits from traditionally vulnerable entrance points to the house. The other two windows feature six-pointed stars, a device commonly employed on amuletic gemstones, and presumably performed a similar protective function (Mitchell 2007, 289). Such apotropaic imagery also occurs within the mosaic pavements of the earlier *domus*, notably with the prominent eye in the western portico. This feature is relatively unusual in mosaics and, according to John Mitchell, suggests that repelling of harmful forces was of particular concern to the owners of the *domus* (Mitchell 2007; 2011a, 274). This concern for protection against spiritual harm is a recurring feature in the *domus*/Triconch Palace complex and in the material from later contexts, giving some insight into the way such beliefs could permeate everyday material culture (Mitchell 2007).

In general, the fragmentary nature of the architectural members recovered is indicative of comprehensive robbing of the building remains. It should also be noted that many of the column fragments came from 10th- to 12th-century contexts in the courtyard, which may include significant quantities of material dumped from elsewhere in the town. Although pre-AD 425 stratified deposits were limited by comparison with those from later phases, the paucity of residual material that can be related to this period and the overall utilitarian nature of the assemblage as a whole are quite striking. It suggests that the Triconch Palace was either unoccupied at the time of its abandonment or that the contents of the house were systematically removed, either by the owners or by others who took advantage of an opportunity to salvage the contents. As was argued in Bowden *et al.* 2011c, it is apparent that the most grandiose phase of the building, with its enlarged east wing (including the triconch *triclinium*) and the expanded peristyle, was unfinished at the time of its abandonment. There were no signs of floor or wall decoration in the new east wing and the new porticoes of the peristyle were unpaved, although the west portico and part of the south portico retained the mosaics of the preceding phase. Although it is possible that subsequent quarrying for building materials has accentuated this picture, the partial paving of the porticoes clearly supports the idea that the building was under construction at the time that the decision was taken to abandon it or to change its use to a multi-occupancy and less obviously high-status building. It is thus likely that much of the building was effectively a construction site around AD 425 and that the contents had been moved elsewhere, to safeguard them from the effects of major building work.

Other archaeological evidence that can definitely be associated with this primary phase is very limited, although notable small finds included a small bone plaque depicting a hunting dog leaping over an eye, which probably served some sort of amuletic purpose (Ivory and bone cat. 3) (Mitchell 2007, 294–6). This was recovered from the foundation levels of the eastern peristyle and thus predates the expansion of the house *c.* AD 420. The chances of recovering environmental, faunal or artefactual assemblages that can be clearly associated with a high-status urban residence is, in any case, fairly small given that most domestic refuse will have been transported away from the house by slaves or other household servants. It is only in the later Roman period that attitudes to domestic waste seem to change, with waste deposited much closer to inhabited areas as part of a suite of changes occurring in late antique towns (Johnson 2010), an issue that is discussed further below.

Some limited faunal remains from this early period were recovered from the Triconch Palace area, mainly from the area of the trackway to the west of the *domus*, later covered by Rooms 29 and 31, where 3rd-century deposits were encountered (Bowden *et al.* 2011c, 11–14). The very limited quantities of material available should make us cautious, but nonetheless the relative proportions of species recovered seem to follow a trend that is reflected in the larger sample sizes of Phases 5 and 6 (see below). Of particular note is the fact that sheep/goat are less represented in the earlier assemblages by comparison with cattle and pig, before beginning to form an ever greater part of the assemblage and becoming dominant in Phase 7. The apparent dominance of cattle and pig in this early phase reinforces the sense that this area of Butrint shows typically urban patterns of consumption (King 1999). This is reinforced by the similar picture recovered from the more extensive deposits of this period recovered from the Butrint

Forum, which show a similar dominance of cattle and pig in the assemblage up until the 4th century (MacKinnon n.d.).

The ceramic assemblage of this period is also very limited by comparison with that of the 5th century and later, but clearly demonstrates that the occupants of this area of the town had access to wine and oil from Crete, North Africa, the Aegean and southern Italy in this period, although Spanish Baetican amphorae are entirely absent. African Red Slip Ware was the dominant fine ware, although eastern Mediterranean fine wares were also present (Reynolds 2003, 237–8). The available evidence thus suggests that the inhabitants of this area of Butrint had ready access to local, regional and long-distance supply networks, even for products such as olive oil which could be (and were) produced locally. The latter demonstrates the extent to which Butrint, as befitted its coastal location, was fully integrated into the exchange networks that powered the movement of bulk products around the Mediterranean, while also maintaining the links with southern Italy that are evidenced in all periods of the town's history (see below).

The only possible hint of a higher-status level of consumption by comparison with later periods comes from the finds of vessel glass, particularly from Room 10. The quantity of glass from Phases 1–3 (a total of 173 sherds) is proportionally quite large in relation to that from later periods, given the very limited excavated deposits of this phase, suggesting that there may have been a greater quantity of vessel glass in circulation. However, this must remain a tentative suggestion given the issues of comparing sample size and it is clear that glass vessels remained in common use throughout late antiquity.

The 5th-century domestic occupation (AD 425–500: Phases 5 to 6)

During the period AD 425–500 (Phases 5–6), small-scale but coherent occupation can be seen in the west wing and possibly the south wing of the Triconch Palace, and in Room 37 of the Merchant's House area (Figs 1.8, 1.9) (Bowden *et al*. 2011d, 56–76; Bowden 2011b, 304–6). Although this activity lacked the architectural grandeur of the *domus* and Triconch Palace, it is clear that this was not makeshift occupation or temporary 'squatting' (as this type of secondary occupation was often termed in earlier scholarship). The west wing was still roofed with tiles, with a probable kitchen or working area in Room 26 and the colonnaded entrance of Room 25. This included a large *pithos* in the corner of Room 26 and an oven or furnace (Bowden *et al*. 2011d, 60–3). Rooms 23 and 27 were probably also part of this, with Room 27 containing an extraordinary circular structure in the second half of the 6th century and a new door cut to connect Rooms 22 and 23. Partition walls were inserted into Rooms 29 and 31. All the rooms in the west wing remained interconnected. Also of note is the fact that the peristyle courtyard remained largely free of deposition during this period although deposits of silt began to develop in the south portico in the later 5th century. The west portico remained free of deposition, as did the apsidal reception room (Room 24), suggesting that the latter may have retained this function in the new, divided, dwelling. The long gallery (Room 18), however, saw little activity in this period and a build-up of relatively sterile silt deposits suggests episodes of flooding. Room 37 of the Merchant's House also seems to have formed the focus of a similar dwelling from *c.* AD 450, with two *pithoi* found *in situ* and evidence of a floor of reused fragments of marble veneers noted above (Bowden 2011b, 304).

The material recovered from this phase is of note in that the character of the assemblage has much more in common with that associated with the earlier *domus* and Triconch Palace occupation than it does with the assemblage that is characteristic of the period after AD 500. Although the picture may be affected by the presence of residual material, the combined assemblage strongly indicates that this phase of occupation represents a recognisably urban lifestyle of relative prosperity in terms of diet and material culture. Although it would be going too far to term this as representing an urban 'middle class', it is clear that the occupants of the Triconch in this period were not obviously impoverished or transient. The dwelling in the west wing of the Triconch and that represented by the post-AD 450 occupation of Room 37 of the Merchant's House were coherent urban residences occupied by residents who apparently had access to the same range of foodstuffs and possessions as their predecessors in the *domus* and Triconch Palace.

The faunal remains suggest some interesting possibilities in this regard. NISP (Number of Identified Specimens) data by phase suggest that prior to AD 500 pork was a more significant component of diet than after AD 500, when it was supplanted by sheep/goat with the amount of pork consumed steadily declining thereafter until a slight revival at the end of the 6th century. The NISP totals also indicate that consumption of domestic and wild fowl was more common prior to AD 500, with the birds forming a noticeably larger component of the Phase 5–6 assemblage. Although issues of sample size and recovery means that such a suggestion must be tentative, both the range of species present and their relative quantities within the assemblage indicate that the diet of the triconch area's occupants was more varied prior to AD 500. This includes game (with its accompanying connotations of status) which, although present throughout, forms a higher proportion of the assemblage from this period. The faunal assemblage is little different from that noted for the 3rd and 4th centuries and, with the predominance of pork, is consistent with that of an urban Roman population.

The range of material culture in use at the site also presents some intriguing aspects. Of particular note is the presence of personal effects made of bone and ivory, which are heavily weighted towards this earlier period (in the context of an overall small quantity). The majority of the bone objects recorded in Table 10.1 belong to Phase

Table 10.1. Dress and personal items by room and phase (without grave finds)

Cu alloy - •
Bone - †
Silver - ¤
Fe - x

Rm/phase	**1-3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12/13**	**13/14**	**15**
6	†											
10	••											
14												•
15												
16	†	†		•			x			†•••••		•••
17												
18				¤			•••					•••
19				••						•		
20												
21							•					
22			•									
23				•		•						
24					•	•				•		•
25												
26			†									
27				†	†							
28				•								
29												
30					†							
31				†						•		
32												
33												
34												
35												•
36												
37												
38				†								
39					•					•	••	••
40								•				
41												
42												
43									•			

7 and earlier and Mitchell (Chapter 8) highlights the presence of a number of quite high-status items, suggesting 'the occupants cultivated lives of some elegance and refinement, with a concern for ornamental expression and symbolic reference in the material culture with which they surrounded themselves'. Particularly elaborate material was found in Room 37 and includes the fragment of a very fine carved glass bowl (Decorated glass cat. 13; Plate 9.2) as well as a possible ivory gaming piece, decorated with Coptic motifs and surmounted with a small carved cross (Ivory and bone cat. 1; Plate 8.9). Other material included a splendid bone handle in the form of an arm with a hand holding a shell that was probably part of a woman's mirror or other toiletry item (Ivory and bone cat. 5; Plate 8.11), recovered from a Phase 5 hearth or furnace in Room 26. The same room produced a curious small copper pan, just under 8 cm across (Cu alloy cat. 97), which may be associated with glass working (suggested by the discovery of a large lump of melted glass close to the furnace. An almost complete quern stone (Stone cat. 12) from the same room reinforces the impression that Room 26 functioned as a working area or kitchen. This impression is also reinforced by small quantities of grain recovered in the west wing from this period, which Livarda and Giorgi associate with food preparation (see Chapter 2).

Room 23 also produced a variety of finds associated with this phase, including five ceramic lamps found in the corners of the room (Plate 10.1) as well as the *in situ pithos* in the northwest corner. The lamps were found in demolition layers associated with subsequent phases, but their consistent position in the corners of the room suggests that they were close to their place of use and may well have sat on small shelves in the corners (Bowden *et al.* 2011d, 83). One of the lamps (Ceramic cat. 21) featured an inscribed cross on the underside, while a second (Ceramic. cat. 22), found in the northeast corner, was decorated with a *chi-rho*, continuing the integration of Christian imagery with day-to-day existence that was a feature of the *domus*.[1]

Two bone gaming pieces (Ivory and bone cat. nos 11 and 12), were found in association with two of the lamps in the southeast corner and may have been housed on the same shelf.

Other notable small finds from this phase include a fragment of what may be an equestrian statuette (Cu alloy cat. 54) found in a Phase 6 floor make-up deposit in Room 31. Other personal effects included a monogrammed Cu alloy finger-ring (Cu alloy cat. 17), an acanthus leaf pendant (Cu alloy cat. 11) (again of a possibly apotropaic function), and an earring (Cu alloy cat. 2). Some interesting aspects of the small finds assemblage relate to absence rather than presence, in that all the material associated with fishing comes from Phase 7 and later (see below), suggesting that, prior to AD 500, fishing was not a factor in the day to day lives of the inhabitants (in contrast with later phases). Finally, there is some indication of a concentration of glass vessel sherds in Phase 5, in Rooms 22, 23 and 26 (possibly associated with glass working as noted above), although in general there are significant quantities of vessel glass present throughout late antiquity, suggesting glass vessels remained a cheap and accessible commodity throughout the 6th century.

Many problems remain with interpreting these phases at the triconch, not least the level of post-depositional movement and the reality that in the main it is secondary deposits rather than primary *in situ* occupation horizons that are being dealt with. Nonetheless, although the material culture of the later 5th century is by no means luxurious (with the exception of a small group of very impressive objects), the evidence such as it is suggests that the occupants of the subdivided Triconch Palace retained access to the lifestyle of a prosperous urban population. It should also be noted that there is no evidence available as to the nature of occupation in the eastern wing of the building (with the triconch *triclinium*) in this period due to the fact that it was cleared to putative floor level in earlier excavations.

The 'ruralisation' of the Triconch Palace? (AD 500–50: Phases 7 to 8)

From around AD 500 there was a fundamental change in the character of occupation in the Triconch Palace area and the sense of coherent dwellings in the west wing of the Triconch and in the Merchant's House area is lost (see Figs 1.10 and 1.11) (Bowden *et al.* 2014d, 76–96). The surviving structures were partly demolished and quarried for building material (perhaps for use within the city wall or within the new Christian public buildings that were constructed nearby in the first half of the 6th century). Demolition deposits were evident through the area of the Merchant's House, while thick deposits of broken tile were noted throughout the west wing of the Triconch and spilling out into the west portico. The fragmentary nature of these tiles suggested dumping of broken tiles that couldn't be recycled rather than *in situ* roof collapse.

This change may have been associated with the construction of the city wall, perhaps around AD 525, which changed the relationship between the Triconch and Merchant's House area and the Vivari Channel, although the construction of gates (in front of the Merchant's House and to the east of the triconch *triclinium*) ensured that some connection with the channel could be maintained (Fig. 1.10). The relationship between this area and the wall was clearly complex, given the construction of the gates to maintain access and the fact that the wall apparently takes a dog-leg to preserve the integrity of the Triconch/ Merchant's House area, although the latter could be a result of the need for the wall to follow the edge of the channel as closely as possible. However, the dating of the wall's construction and the dating of the abandonment of the dwellings described above are not sufficiently precise to allow us to suggest a clear correlation between the two events.

At the same time as most of the dwelling in the west wing was becoming buried beneath dumps of broken roof tile, the long gallery (Room 18) was reoccupied, with features including a hearth characterised by the use of an amphora neck as some sort of internal support. The insertion of a masonry stair block at the eastern end of Room 18 and the discovery of a number of post-holes indicates the erection of a structure with an upper storey. These features were subsequently buried beneath dumps of mussel shells that also extended into other rooms of the south wing. Mussel-shell dumps also appeared in Room 38 of the Merchant's House and in the open courtyard (39) in front of the gate, following the demolition noted above.

Following the build-up of a silt and clay layer across its mosaic floor, the apsidal reception room (24) was also used for the first of a series of furnaces (probably for smithing), while the mosaic itself was pierced by multiple post-holes, most of which were probably cut through the clay. Other signs of activity can be noted in the southern wing, particularly at the eastern end in Rooms 19 and 20. A wall was also inserted to block the main entrance between the southern wing and the former peristyle courtyard, suggesting that divisions may have been maintained between areas and activities. The end of this period saw the first appearance of burials in the southern wing, while the northern wing of the Triconch (Rooms 14 and 17) saw the dumping of deposits of broken tile interspersed with domestic waste that extended into the eastern portico.

These changes, which are described in detail in Bowden *et al.* 2011d, are also reflected in patterns of consumption and material culture use at the site. Notwithstanding caveats regarding sampling and post-depositional movement already noted above, the evidence detailed in this volume demonstrates fundamental shifts in the way that this part of Butrint was being used and in the lifestyles of its inhabitants.

This sense of change is apparent in the nature of the small finds assemblage, which becomes progressively more utilitarian from Phase 7 (AD 500–25) onwards.

Table 10.2. Fishing equipment and other utilitarian objects by room and phase

Cu alloy fishing equipment - •
Cu alloy animal bells - Δ
Fe tools and implements- x
Fe knife - ◊
Quern stones ♦
Ceramic spindle whorl/loom weight Φ

Rm/ phase	**1-3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12/13**	**13/14**	**15**
6												
10												
14						♦						
15												
16							•	Φ Φ		x ◊ Φ Φ Φ Φ	x	
17											x	
18							•••Δx♦ Φ	•				
19						Φ		Φ				
20					•							
21					•	•	•					
22							◊					
23					♦	• Φ						
24					Φ	•		•				Φ
25				Φ								
26			X ♦		♦♦♦♦ Φ							
27					♦	◊						
28												
29								Δ ♦				
30												
31						♦	♦					
32												
33												
34												
35												
36												
37												Φ
38										Φ		
39						♦ Φ					• x	x x ◊ ◊
40								x x				◊
41					•							
42												
43								• ♦				
44					◊ ◊							x

The number of items associated with dress or personal adornment (although never large) reduces from a peak of nine in Phase 6 to two by Phase 8 and the occasional fine bone items disappear entirely after *c.* AD 525. Also of note is the gradual increase in the number of ceramic spindle whorls and loom weights from this period onwards (Table 10.2). It is also in this period that we see the first appearance of fishing equipment, in the form of hooks and net repairing tools (Table 10.2). Although relatively small numbers of items are involved, their appearance in the rooms of the south wing coincides with the start of the mussel-shell deposits and it is clear that the proximity to the Vivari Channel becomes increasingly important to the economic and subsistence strategies adopted at the site. It is also of interest that the construction of the city wall does not seem to hinder the use of the triconch area for the exploitation of marine resources.

In contrast, there is no obvious change around AD 500 in relation to the overall use of glass vessels, which remains concentrated around the rooms of the west wing where it was most prevalent in the previous phases; this may, in part, represent residual material (Plate 9.1). The greatest concentration of glass in the early 6th century was noted in the apsidal reception room (24), although this concentration may be anomalous given that the major early 6th-century context from Room 24 (1300) was fully sieved and thus recovery of small sherds of glass is likely to have been considerably higher. However, as this room saw no obvious deposition prior to the early 6th century, this demonstrates that large quantities of vessel glass were still in circulation during this period. The deposition of vessel glass reached a peak between AD 525 and 550, with particular concentrations apparent in the Merchant's House area in Room 37 and in the courtyard (39).

Perhaps the clearest indication of the changing nature of occupation at the Triconch Palace comes from the faunal remains, where NISP figures divided by phase show that sheep/goat supplanted pig as the dominant species represented. In deposits of Phase 8 (*c.* AD 525–50), the number of caprines represented at the Triconch Palace is double that of pig (in contrast to Phases 5 and 6 (AD 425–500), where pig was dominant in the assemblage). All carcass elements are represented in the caprine remains, indicating that slaughter took place on site. Interestingly, the dominance of caprines in the assemblage is not so pronounced in the Merchant's House. This overall shift towards caprine pastoralism is something that is characteristic of late antique sites in Italy and elsewhere (King 1999). Comparison with the Forum and Vrina Plain assemblages may suggest localised differences, although in both cases the late antique groups were treated as a single phase. MacKinnon's analysis of the data from the Forum shows that pig is the dominant element of the late antique assemblages (MacKinnon n.d), while Madgwick's analysis of the Vrina Plain material, by contrast, demonstrates that sheep/goat dominated throughout late antiquity (although the small 3rd-century assemblage showed a slight bias towards pig) (Madgwick 2019). It therefore appears likely that localised differences in diet can be seen at Butrint, reflecting the changing nature of occupation in individual areas. It could further be suggested (albeit slightly simplistically) that around AD 500 there is a switch at the Triconch Palace from an 'urban' pattern of consumption (represented by the earlier Triconch material and the pork-dominated assemblage at the Forum) to a 'rural' pattern in which sheep/goat is dominant, as represented by the Vrina assemblage.

In relation to food preparation, fragments of quern stones are also relatively common in contexts of this period, appearing in the west wing in Rooms 23, 26, 27 and 31 (Table 10.2), although they appear in demolition deposits and may therefore relate to activity in the previous phase. Further single quern stone fragments of this period were noted in the north wing (Room 14) and in the courtyard (39) of the Merchant's House. An oven or kiln of this period in Room 22 included quite a rich assemblage of plant remains relating to food preparation, indicating, along with the quern stones, that small-scale domestic food processing was occurring in the area from the mid-5th century onwards. The fill of an amphora burial (5376 – burial 5384) from Room 29 dating to the first half of the 6th century also contained an assemblage of charcoal and plant remains as well as fish and other small bones, suggesting food processing and consumption (perhaps deriving from the 5th-century layer into which the burial was cut). In relation to this the presence of *clibanae* should be noted, the portable ceramic bread ovens widely recognised in late antique contexts and associated by Arthur (1998) with the collapse of centralised bread production in urban centres such as Naples. Examples of *clibanae* were noted in a major context (1152) excavated in the north wing dating to the first half of the 6th century (Reynolds 2003, 235), indicating production of bread at a household level in the triconch area during this period.

The period after *c.* AD 525 also saw the first appearance of the intermittent industrial activity that characterised use of the southern wing during the 6th century. The earliest evidence of this was in Room 21 in the southern wing, where a quantity of iron slag was recovered from a demolition layer, although the origin of this is not clear. The earliest *in situ* evidence was from the long gallery (Room 18), where a pit was found containing burnt material and the sawn-off neck of a Samos amphora dating to *c.* AD 500 that had apparently been used as some kind of kiln furniture (a feature that was characteristic of the ovens or hearths of the later 6th century at the Triconch). No clear evidence of its function was found. Slightly later a series of furnaces were constructed in the apse of Room 24. The main fill of the earliest of these (1562) contained charcoal and traces of hammerscale. Hammerscale was also recovered from a contemporary pit fill in Room 24, which seems to have been sub-divided with a series of rubble and post-built partitions, while the apse was used for the hearths, its more solid construction and masonry semi-dome mitigating against the fire risk. Remains of a smithing hearth bottom was also recovered from a slightly later demolition deposit (1392) that overlay the post-holes of the partitions (Bowden *et al.* 2011d, 88). In addition to these indications of iron working, a fragment of crucible with traces of copper alloy was found in a contemporary deposit (4051) in the Merchant's House courtyard (Bowden *et al.* 2011e, 184), indicating other forms of metalworking in the area in this period.

The earliest burials in the triconch area certainly date to before the mid-6th century. A disturbed neonate burial in a late 5th-century Gazan amphora was noted near the corner of the city wall in the Merchant's House area. The earliest burials in the south wing also seem to occur prior to AD 550, with the insertion of the graves of an infant (in a 6th-century Gazan amphora) and a child of 4 to 6 years old in a *tomba a cappucina* in Room 20 (Bowden *et al.* 2011d, 88) and an amphora burial in Room 29 of the west wing. These were the first of a series of burials that stretched into the 7th century. The graves were interspersed with other activities including the erection of post-built structures and the dumping of mussel shells that spread across one of the graves. MtDNA testing on the child in the *tomba a cappucina* (skeleton 5631) found it to be of a unique haplotype (i.e. of different genetic origins to any other skeleton in the group) and this is discussed in more detail below.

Notwithstanding the changes noted above, it is clear that those utilising the Triconch Palace area in this period were still fully involved in a monetary economy and maintained access to Mediterranean exchange networks. In particular, the sieved context 1300 from Room 24 provides a clear insight into coin use and supply at Butrint in this period. Some 203 coins were recovered, of which only 59 could be ascribed to clear periods. Of these 59 coins, only two (possibly intrusive) dated to the 6th century (dating to AD 547 and 548 respectively), while the majority (42) dated to before AD 445. As Moorhead (2007; Chapter 6 this vol) points out, this confirms what the hoard evidence has been indicating for some time, namely that small denomination bronze coinage was very long lived in certain parts of the Mediterranean, presumably because the need for small change was not being met by the State. The worn nature of the unidentifiable parts of this coin assemblage attests to its time in circulation and heavy usage. This may have continued well into the 6th century, given the limited quantity of coins present at Butrint that post-date the Anastasian coin reform of AD 498. Coins of Anastasius are very rare at Butrint, in comparison with Dyrrhachium and Bylis (Papadopoulou 2012). The very large number of coins recovered from 6th-century contexts at the triconch certainly indicates the continuation of a small change economy continuing in the post-reform period but equally shows the low value of such coinage given the rate at which it was lost. There is, however, no obvious single 'discard horizon' of the type suggested by Richard Reece (2003b), representing a moment when such coinage simply lost any relational value with a gold standard and was thrown away. However, the status of such small coinage in the post-reform period may have become increasingly ambiguous leading to a lack of concern about its loss.

Although the supply of coinage in the first half of the 6th century seems to have been limited, the same cannot be said for other products. Rubbish deposits at the Triconch Palace included cooking wares from eastern Sicily, the Aegean and western Asia Minor, while fine wares were dominated by Tunisian ARS with LRC from Phocaea also playing a substantial role (albeit secondary to the African products). Amphorae, meanwhile, indicate the supply of wine and olive oil from the eastern and central Mediterranean, with LRA 1 from Cyprus and Cilicia as the most dominant amphora type, followed by the Aegean amphora type LRA 2. Other amphorae indicated supply from Crete, Tunisia and southern Italy (particularly Puglia and Calabria). Sporadic examples of other eastern Mediterranean types were also present (Reynolds 2004). Whether all of Butrint's inhabitants were consuming these products is open to question but it seems likely that many sections of society in Butrint had access to a remarkable range of imported goods, including those such as wine and oil that could equally be produced locally. This material was included in deposits from across the site, although particularly in a large deposit of rubbish and broken tile from Rooms 14 and 17 on the north wing and extending into the eastern peristyle. It cannot be said with certainty that this material represents the consumption habits of those living on the immediate site itself but there seems no reason to suspect otherwise.

In summary, therefore, some marked changes can be seen in the nature of occupation at the Triconch Palace between AD 500 and 550. The coherent and still recognisably urban pattern of occupation of the 5th century was replaced by a way of life that was more utilitarian in many ways. Subsistence was becoming increasingly reliant on a range of foodstuffs that reflected a more rural life, with sheep/goat becoming dominant in the faunal assemblage as it was on the Vrina Plain. A pattern was emerging of intermittent quarrying for building supplies, industrial activity, the landing and shelling of mussels and, towards AD 550, the beginning of burials in the area. Activity and occupation in the triconch area was seemingly becoming piecemeal and low status. In short, from AD 500 onwards the triconch area was becoming a more peripheral zone of the city.

Blacksmiths and burials (AD 550–650: Phases 9–10)

The processes that start to be detectable at the Triconch Palace in the first half of the 6th century became more pronounced from AD 550 onwards (Figs 1.12, 1.13) (Bowden *et al.* 2011d, 96–117). In particular, the long gallery (Room 18) became the site of an extended series of hearths or furnaces, two of which were again characterised by the use of sawn-off amphora necks as kiln furniture, presumably functioning as some kind of internal support (Bowden *et al.* 2011d, 98–101). What was being supported is unclear, although it is worth noting the resemblance between the use of the amphora necks and *lasana* known from Classical Greek contexts, notably the Athenian agora, which seemed to have been used as supports for large cooking vessels (Morris 1985; Papadopoulos 1992), although in that instance they were clearly made for the purpose. The use of *lasana* has also been noted in industrial contexts (Papadopoulos 1992). At the Triconch, the hearths may have been used for blacksmithing or it is possible that they were associated with the cooking and preparation of mussels (or indeed both). This activity was clearly taking place in the vicinity, evidenced by the huge quantities of mussel shells found in the southern wing of the Triconch and the Merchant's House, and it is likely that mussels were cooked and shelled immediately upon being landed on the channel side (much as local people were observed doing during the excavations) (Plates 10.2, 10.3).

Other furnaces were noted in Rooms 21 and 24, the latter where they were added to the earlier sequence in the apse of the earlier reception room. As with the earlier sequence,

Table 10.3. Cu alloy plates, strips, rods and wire by room and phase

Cu alloy sheet - •   Cu alloy combined sheet - ‡ Cu alloy strip - Δ   Cu alloy rod -o
Cu alloy wire -1

Rm/ phase	1-3	4	5	6	7	8	9	10	11	12/13	13/14	15
6												
10	o											•
14						•						
15												
16		1 1 1		•		Δ Δ	••• Δ Δ Δ Δ Δ Δ o	•		••••••‡‡ o	••‡	••
17	Δ											
18					o	•	•••• Δ o o	I				‡
19				1				1				
20								1				
21						•• o						1
22			••••••	•••••••						•‡ 1		
23			Δ							•		
24	•				• o							
25			••									
26												
27												
28												
29				Δ o				Δ Δ 1				
30												•
31				‡		•1	•					Δ
32												
33												
34												
35												
36												
37				•• Δ 1 1		•‡ 1						1
38												
39					Δ	•Δ				•••••••• Δ Δ Δ Δ Δ o o	•• Δ 1	Δ
40							Δ				••	
41												
42												
43					•		o					
44												
45											• Δ	
46												
47				•								

it is likely that at least some of these hearths were used by blacksmiths (see Chapter 5). Traces of hammerscale were recovered from the fill of a very substantial kiln towards the western end of Room 18 and also from the fill of a grave dug into the same feature (Bowden *et al.* 2011d, 97–9; 112–13). As noted above, a probable smithing hearth bottom was recovered from a Phase 8–9 context in Room 24. Other metalworking evidence was found in medieval contexts and will be discussed below, although it is possible that it was residual and derived from this late antique metalworking phase. Little clear evidence of the finished products of these furnaces was identified although a miscast possible buckle in copper alloy was found with a casting sprue in place (Copper alloy cat. 37). It is likely that any waste metal would have been recycled. The presence of fragments of copper alloy rods, sheets and strips in deposits of Phase 9 in the peristyle courtyard (16) and Room 18 (Table 10.3) should also be noted. A further striking feature of the deposits associated with this period, particularly those in Rooms 18 and 21, was the large number of nails they contained (see Plate 8.1). It is certainly likely that nails would have been a significant product for any blacksmith. It is also possible, however, that the nails are the result of burning scrap wood in the hearths. This large number of nails is also likely to reflect in part the sheer size of the deposits of this period excavated and their overall finds density, with Phase 9 also producing three times the number of animal bones of any other phase.

The faunal remains continued the pattern that emerged during the first half of the 6th century, with sheep and goat becoming increasingly dominant in the assemblage, although the percentage of pig present in the assemblage rises slightly towards the later part of the 6th century. That live animals were present on the site in this period is also demonstrated by the discovery of copper alloy animal bells in Rooms 18 and 29, and it is clear from element representation (across all phases) that butchery took place on site. The apparently reduced presence of chickens on the site is particularly intriguing as this reflects a pattern that has been noted elsewhere during the 6th century, which may relate to disease or climatic change affecting poultry populations (Sykes 2018). Fishing equipment (albeit in small quantities) remains a factor in these assemblages, particularly in Room 18 and the quantities of mussel shells noted within deposits in both the Triconch and Merchant's House areas attest to the continued importance of the lake and Vivari Channel in the subsistence economy of the site after AD 550.

The most notable structural addition from this period was an impressive two-storey building with an external staircase (Room 40) built in the angle of the city wall in the Merchant's House area, within the footprint of the demolished Room 47 (Bowden *et al.* 2011e, 193–7). The collapsed roof deposit (3105) within this building contained a range of material that seems most likely to have been associated with it. Metal finds included a fine bronze handle in the form of a leaping dog (Cu alloy cat. 57), a bow fibula (Cu alloy cat. 29), a large copper alloy hook (Cu alloy cat. 103), a one *nomisma* weight (Cu alloy cat. 64), and a number of other iron and copper objects including an iron ring hook and spike (Iron cat. nos 22 and 23) and 15 iron nail fragments. The assemblage also included a lamp with a cross motif (see Plate 8.8) and an ARS plate dating to after AD 575, as well as a coin of Justin II dated AD 574–75. Coins of the post-reform period (post-AD 498) are very limited in the triconch area and there are only nine coins that post-date the end of the reign of Justinian in AD 565, although earlier *nummi* appear to remain in use until the end of the 6th century (see below), suggesting the survival of the *nummus* economy until the 6th century.

As well as continuing to participate in a small denomination coin economy, the inhabitants of the triconch area maintained access to a wide range of Mediterranean goods between AD 550 and 600. However, as Paul Reynolds (2004) has shown, there was a fundamental shift in supply to Butrint after AD 550, when the town's access to North African products diminished significantly. Reynolds has argued that following the Byzantine reconquest of North Africa, the circulation of region's products was restricted to centres supplied through a revised *annona* system in which Butrint did not participate. Instead, a major post-AD 550 context (1676) from the long gallery (Room 18) shows that eastern Mediterranean and particularly Aegean products became dominant in the amphora and fine ware assemblage. Aegean LRA2 constituted over half the amphora assemblage, with Tunisian amphorae comprising less than 2%, while Phocaean LRC formed over 50% of the fine ware, although ARS remained a significant component of the latter. Southern Italian amphorae remained a small component of the assemblage. This indicates that the inhabitants of Butrint living in the vicinity of the triconch, if not at the triconch itself, retained access to a significant range of products from across the central and eastern Mediterranean. As Reynolds points out, it is not possible to judge whether this is the result of State involvement (and the increasing reach of Constantinople) or entrepreneurial activity, although there is nothing in other aspects of Butrint's archaeology that indicates significant interest in the town on the part of the Byzantine State in this period. Indeed, the very limited supply of new coinage to Butrint in the 6th century would tend to argue against such State involvement.

Finally, in relation to later 6th-century material culture at Butrint, the continued significant use of glass vessels from AD 550 to the late 6th or early 7th century (Plate 9.1) should be noted. Particular concentrations can be seen in the long gallery (Room 18) and in the peristyle courtyard (16), even though all the indications are that these structures were only partially standing by this point. The collapsed remains of the two-storey building in the Merchant's House area also contained a notable quantity of glass and it is clear that glass drinking vessels remained in use throughout the later 6th century.

Living and dying in later 6th-century Butrint

From *c.* AD 575 onwards, the most striking feature of the triconch area was the number of child and infant burials that were present (Bowden *et al.* 2011d, 105–117; Bowden 2011b, 312–14). These were particularly apparent in the southern wing of the Triconch Palace, although slightly earlier burials were also present in the west wing around AD 550 (see above) and in Rooms 38 and 47 of the Merchant's House, where single burials were noted. Only one of the 16 individuals examined by Beatrice *et al.* (see Chapter 4) was an adult, two were estimated to have ages of 4–5 and 4–6 years, while the remaining 13 were in the foetal or infant categories. This has led Beatrice *et al.* to suggest that the Triconch was a specialised infant cemetery, of the type suggested by Soren and Soren (1999) at Poggio Gramignano in Umbria. The situation at Butrint is also intriguingly reminiscent of cemeteries in *Africa Proconsularis*, where Norman (2003) notes the occurrence of children's cemetery areas characterised by the use of amphorae as burial containers, defining the latter as characteristic of Punic contexts. However, as I have noted previously (Bowden 2011b, 313), the relatively small number of burials inserted over a relatively lengthy period (of up to 75 years) could argue against these burials representing a designated infant cemetery, instead representing rather intermittent and more *ad hoc* interments over an extended period. This is also suggested by the fact that the area used for burials was also used for the dumping of rubbish and mussel-shell remains that could indicate that the locations of the burials were lost over time. The presence of a single adult burial is also obviously anomalous. Although this burial could not be closely dated, the use of a pitched tile cover *alla cappuccino* strongly supports the idea that it dates to the late antique period.

The phenomenon of burial among areas of settlement is widely known from early medieval Europe (Azkarte Garai-Olaun 2002), for example from Brescia between the later 6th and 8th century, where Brogiolo (2005) notes that this only involved some sections of the population as the numbers involved were relatively small and the extra-mural cemeteries remained in use at the same time. At Brescia, such burial areas were also characterised by a high number of child and infant burials, which Brogiolo (2005, 273) ascribes to high child mortality. He notes that such burials removed the funerary ceremony from the public domain and from the redemptive context of the church and suggests that those involved were from the lower ranks of society. However, it can also be noted that children in the (Italian) Roman context were associated with the private and domestic (rather than the public) side of life until the age of around seven when they began to cross the threshold into adult life. Their treatment in death could be correspondingly different from adults (Norman 2003, 45).

Two characteristics stand out in the late antique burials at the Triconch. The first is the possible genetic diversity of the group. A total of 13 of the late antique burials were sampled for mitochondrial DNA and were assigned haplotypes (combinations of MtDNA sequences that are inherited together) on the basis of the results. Nine of the burials were assigned haplotype 1, an undifferentiated group that was common among the burials of both periods. Four, however, demonstrated unique haplotypes indicating no maternal relatedness with any other burial on the site. This suggests, according to Beatrice *et al.*, that an unusually diverse group of individuals was present. In combination with the apparently intermittent use of the cemetery, this leads to the possibility that after AD 550 the inhabitants were transitory and only used the site periodically, leading to a situation where only a small sample of the population was present in the grave assemblage. There is no way of knowing whether this was the case or not, but it is clear that future MtDNA analysis of similar populations is desirable to explore some of these possibilities.

The second striking characteristic is the poor health of the infants and children present in the cemetery. Skeleton 5043 (a 1- to 2-year-old) demonstrated enamel hypoplasia (pits or lines on the tooth enamel) that indicated physiological stress *in utero* or in the first year of life. Four individuals (three infants and the adult) showed periosteal reactions, where irregular growths of new bone develop in response to trauma, stress or infection. Lesions in the eye orbits and/or the cranial vaults were present in 35.7% of the cranial vaults available and 54.5% of the eye orbits. Such lesions are consistent with scurvy caused by vitamin C deficiency or anaemia, although the causes may well relate to multiple complex underlying conditions. These could include parasitic infections inhibiting the absorption of vitamins C and B, combined with diarrhoeal disease, common in children weaned on nutrient-poor foods in a highly pathogenic or unsanitary environment. The increasingly waterlogged conditions in the lower city of Butrint caused by seismic change and the breakdown of drainage infrastructure may well have contributed to such conditions as well as creating an environment suitable for malarial mosquitoes, with malaria also being a potential cause of the anaemia that could have produced some of the conditions observable within the Triconch skeletons.

In short, a combination of factors may have caused the poor health of the individuals at the Triconch Palace, with resulting significant levels of infant and childhood mortality. It is not, of course, clear whether this was a wider phenomenon at Butrint, or whether it was restricted to the particular group using the Triconch Palace. However, preliminary analysis suggests that such poor skeletal health was not apparent in the burials at Diaporit (the villa/monastery on the eastern side of Lake Butrint), although these date to slightly earlier in the 6th century and the ecclesiastical nature of the site could mean that infant burials would be unlikely to occur in the same numbers. Similarly, the limited number of late antique skeletons excavated at the Vrina Plain (three adult males and two sub-adults) show what Soler *et al.* (2019) describe as a striking lack of indicators of palaeopathology or physiological stressors, suggesting that the individuals at the Triconch Palace had a poor quality of life by local standards.

At the Triconch, the burials show that some care and attention was paid to the interments but at the same time other activities were also taking place within the area. While there is little obvious spatial structure in the arrangement of burials, at the same time it can be noted that the courtyard remained entirely free of interments, which were confined to the rooms (apparently only partially standing at this point). Burials were also much less frequent within the Merchant's House area, with only two noted during the excavation. Interestingly, the latest of the burials (in the apse of the reception room (24) used a Crypta Balbi 2 type amphora dating to perhaps the mid- to late 7th century (Bowden *et al.* 2011d, 115; Reynolds 2002), indicating that even at this very late stage imported southern Italian material was reaching the site.

The Triconch Palace and the archaeology of late antiquity

What wider lessons can be learnt from the archaeology of the Triconch Palace/Merchant's House in terms of archaeological methodologies and the nature of late antique archaeological assemblages, and what does this actually say about life in late antiquity, at the triconch area, at Butrint and in the Roman Mediterranean? In a valuable edited volume, Lavan *et al*. (2007) sought to use archaeological materials to expand our understanding of the use of space in late antiquity, from analysis of architectural form to a broader and chronologically more complex characterisation of space that recognised that buildings (and the areas between them) may be used for multiple purposes over time. The interest in use of space is a particular feature of Roman and late antique archaeology, in that archaeologists tend to excavate spaces (normally buildings) and make judgements and interpretations regarding their use and function at a given moment in time. The spaces become a proxy for the lives of those who used them, perhaps because it is easier to excavate and interpret the spaces than the invisible actors within them, who obviously will only spend a certain amount of time in the areas excavated and leave only a very limited trace of their presence. This emphasis on space, however, does mean that attention is constantly focused on the environment in which people lived rather than the people themselves.

Focusing on the long-term use of materials rather than the space in which they were found allows the inhabitants of this part of Butrint to be seen in a different light, particularly when those materials are accompanied by the remains of some of the inhabitants themselves. These inhabitants may not be typical of those living in Butrint at this time, just as the alterations occurring within the built fabric of the Triconch Palace are not necessarily representative of the town as a whole. For example, at the same time that the triconch area was being used as a quarry and for intermittent industry and mussel processing during the first half of the 6th century, the grandiose Baptistery and Great Basilica were being constructed a short distance to the northeast. It is clear that diet was changing in the area of the Triconch Palace, from the pork-dominated urban assemblage of pre-AD 500 assemblages (which may have remained the norm in the Forum area) to the sheep/goat-dominated diet that characterised the assemblage of the Vrina Plain. Was this a rural population moving into an increasingly liminal area of the town or part of the town's population adopting a more basic diet? It is certainly apparent that the lives of those within the triconch area were different to those of their predecessors. An occupant of senatorial rank had given way to those who were actively involved in subsistence. Grain was being processed on site, while animals were seemingly brought in on the hoof for slaughter, the presence of young animals suggesting that livestock was being kept in this part of the town.

Although scholars have rightly emphasised the long-term nature of change in late antiquity, it is also important to remember that quite significant changes could occur within the arc of an individual's lifetime. Some of those living within the reconfigured west wing of the Triconch *c*. AD 425–50 may well have met the senatorial individual who was commemorated in the inscription of the entrance vestibule *c*. AD 400. Perhaps more striking would be the switch from using small token-based bronze coinage (that was still very much a feature of daily life at Butrint after AD 550), to a subsistence and barter-based economy by the 7th century.

Coin use, coin deposition and archaeological dating

The use and deposition of coinage is a feature of the Triconch Palace assemblages and Butrint as a whole that has a significance that goes beyond study of the triconch area and the wider town. Although it has long been recognised from hoard evidence that 4th- and 5th-century coins remain in circulation for a considerable time, the very limited publication of large stratified coin assemblages from the Mediterranean remains a significant hindrance to understanding coin use (as opposed to coin supply) at late antique sites (Reece 2003b). Guest (2007) has demonstrated the long life of coins at Dichin in Bulgaria, while Moorhead has argued strongly in this volume (Chapter 6) and elsewhere (Moorhead 2007) that a *nummus* economy continued to function in parts of the western Mediterranean long after the State had ceased to supply large quantities of the coins that supported it. Moorhead and others have made this case based on coins that occur together in the same contexts – i.e. that coins of the 4th and early 5th century commonly occur in contexts alongside coins of the later 5th and 6th centuries. However, the limited supply of coins at Butrint and other sites post-dating the reform of AD 498 means that such analysis risks underplaying the continued use of early coinage in the 6th century. By analysing coins by phase (based primarily on stratigraphic information and ceramic dating) it can be shown that coins of AD 388–402 and AD 402–45 remained in use in significant quantities well into the 6th century (see Fig. 6.6). Although such small coins may sometimes be residual, the relatively small number of *nummi* in later medieval contexts suggests that this is not a significant factor. Equally the 6th-century context 1300 (in Room 24), which was sieved and is thus illustrated separately, was deposited directly above a mosaic floor and hence the large number of (very worn) late 4th- and 5th-century *nummi* are very unlikely to be residual.

As Moorhead has shown, this has significant implications for our understanding of coin supply and coin use in the late antique Mediterranean. Of equal significance, however, are the implications for archaeological dating in the Mediterranean, where many sites and archaeological sequences are dated primarily through coin finds. As a consequence, sites and buildings dated to the late 4th or 5th century on the basis of small numbers of coins may well date (and indeed are perhaps likely to date) to as late as the mid- to late 6th century. This situation will be exacerbated by the limited circulation of post-AD 498 reform coins in certain areas, as the latest coin is often taken to signify the latest activity on a site. In the immediate context of

Butrint, this can be seen at many sites within Epirus (and further afield within Greece), where the latest phases are interpreted as dating to the 4th to 5th century based on coin finds (or their absence). Examples include the abandonment of the Prytaneion at Dodona (Dakaris 1985; 1989; 1990) and the latest phases at Ambracia (Arta), where the absence of coins dating to the 5th century has been interpreted as a *terminus ante quem* for the site's abandonment (Karatzeni 2001, 168). The lifespan of coins remains an issue in many parts of the Roman Empire, not least in Britain (discussed in Haarer 2014), while Guest (2007) has demonstrated that the hiatus in coin supply on the lower Danube between AD 474 and 518 does not correspond to a hiatus in occupation at the site. In parts of the Mediterranean it is clear that contexts cannot be dated to the 4th and 5th centuries on the basis of coin evidence alone, which means that the chronologies of many Mediterranean sites that rely heavily on numismatic data may need to be revisited.

Although it will be a source of frustration to many archaeologists that their only intrinsically datable objects are in fact of questionable chronological value, the long life of very low denomination coins gives an intriguing insight into the relationship between the inhabitants of the Triconch Palace area and wider Roman economic structures. Given that other aspects of the archaeological record point to people living at a fairly basic level after *c.* AD 500, it is nonetheless clear that this group continued to ascribe to the idea of a token-based monetary system with a nominal relationship to a gold standard, even when the Roman State was only intermittently supplying the bronze coins that serviced such a system. It is not clear precisely when this relationship broke down, but coin loss appears to be remarkably consistent through Phases 8–10 (*c.* AD 525–600+), which could suggest that a *nummus* economy actually survived as late as the end of the 6th century, when all supply of coin to Butrint ceases. Even following the cessation of coin supply, it is entirely possible that coin use continued (as Guest argued was the case on the lower Danube from AD 474 to 518), and Butrint may have retained some coin use into the early 7th century.

In many ways the continuation of a monetary economy to facilitate low-value transactions through the 6th century should not be a surprise, given that it is known that Butrint was participating in presumably complex trading relationships with the western Mediterranean (particularly southern Italy) and the eastern Mediterranean and the Aegean. As Reynolds (2003) has shown, the principal sources of supply to Butrint do seem to have shifted around AD 550, as the distribution of North African products was restricted to a smaller number of centres (in which Butrint did not feature) following the Byzantine reconquest of Vandal Africa. The triconch area finds, however, seem to suggest that most sections of society, even at the lower end of the social spectrum as seems to be the case at the triconch, were participating fully in this Mediterranean economy through the later 6th century. Viewed in this context, the change in the 7th century when Butrint falls out of this Mediterranean system seems ever starker.

Mentalities and beliefs

The role of Christianity within a late antique worldview has dominated study of the period since Peter Brown published *The World of Late Antiquity* in 1971. It is clear from the triconch excavations that Christian imagery was a continuous presence on the site from the period of the *domus* onwards, implicit in the use of cruciform imagery in the mosaics of *c.* AD 400 and then explicit in the c*hi-rho* monograms within the lunettes of the windows of the triconch *triclinium*. In the later, less-grandiose domestic phases of the site, Christian imagery was present on day-to-day household items such as lamps and fine wares that featured crosses and c*hi-rho* designs. However, such items can be read as more than passive statements of religious belief. As John Mitchell (2007) has demonstrated, the Christian imagery present in the triconch was only one aspect of a formidable arsenal of apotropaic devices employed both by the owners of the building and those who used the site later in what was apparently a complex ongoing struggle against supernatural powers. These devices included a range of amulets in the form of rings, pendants and buckles that occurred in deposits dating from the early 5th until the late 6th century. It can also be suggested that this concern regarding supernatural intrusion may be manifested in the faunal remains, where the chicken population has large numbers of older male birds that served no practical economic purpose. The noise and aggression of cockerels, together with their associations with fertility and masculinity, makes them highly appropriate for apotropaic purposes and their symbolism in this context can be seen in the entrance to the Baptistery at Butrint, where a pair of fighting cocks guards the door, while simultaneously symbolising rebirth and resurrection (Mitchell 2004, 207). It thus seems reasonable to view the cockerels present in the faunal remains as part of the arsenal of protective means utilised by the inhabitants of the triconch.

It is clear that such magical devices could be readily accommodated alongside apparently Christian items in this day-to-day spiritual struggle, and moreover that Christian imagery could be actively deployed to this end. The two c*hi-rho* windows of the *triclinium*¸ for example, were accompanied by two windows featuring six-pointed stars within the lunettes, the star being a symbol widely employed in amuletic gemstones (Mitchell 2007, 289). Doors and windows were particularly vulnerable to supernatural intrusion and Mitchell argues that the inscription naming the owner of the *domus* may also have functioned in this fashion. This sense of buildings offering protection (and needing to be defended at vulnerable points) may in part explain the positioning of the late antique child burials, which were all placed within the rooms of the *domus*, with none occurring within the open courtyard (a situation that continued during the later Medieval period). Such protection for burials is seemingly characteristic of late antique contexts (see Lewit 2003) and can also be noted elsewhere in Butrint, at Diaporit where 6th-century burials were interred within the bath-house (Bowden and Përzhita 2004a, 430).

The positioning of the burials (and the close co-existence between living and dead) and the consistent use of apotropaic objects and imagery provide an intriguing insight into the belief systems operating at the triconch and the ways in which Christian symbols could be employed within a more wide-ranging symbolic vocabulary to protect its inhabitants from supernatural interference. This practice is also noted in Pannonian cemeteries where a remarkable cornucopia of objects, often overtly Christian, are seemingly employed to this end (Nagy 2015). As Mitchell (2007, 305) suggests, the appearance of such practices at Butrint from the late 4th century onwards points towards a 'fundamental transformation in mentality, in the way in which people understood and managed their existence in life and their prospects after death', in part stemming from the dramatic changes and insecurities that accompanied life in late antiquity. Such assemblages are unusual in archaeological contexts, but as Mitchell points out, the quantity of similar unprovenanced items in museum collections points to a much wider phenomenon, demonstrating the possibilities for archaeology to shed light on the complex belief systems that impacted on daily life.

Conclusion

The triconch area is not a late antique Pompeii, preserving a single moment in time that can be readily reconstructed by the archaeologist. Instead it is a more-or-less continually occupied space in which each phase shows traces of the activities that occurred there in the form of the detritus that was of no further use to the occupants or to others who might search the buildings for salvageable materials. If this rubbish did not impede later activities it stayed where it was, or if the space was required it was cleared away to another part of the site. The material found at the triconch may have been generated by people living within the buildings or it may reflect the lives of those from nearby areas of the town, who were using a peripheral area as a handy rubbish dump. Ultimately we have no way of knowing. In many ways the triconch assemblage is typical of that which occurs in late antique towns across the Roman Mediterranean, illustrating the ways in which formerly grand structures (both public and private) lost their earlier monumentality and became home to smaller-scale domestic and productive activities as well as impromptu fly-tipping and burial as the buildings themselves were quarried for building material.

Notwithstanding the issues of interpretation caused by digging part of a much-disturbed multi-period site in a much larger multi-period settlement and by sometimes imperfect sampling strategies, it is clear that the triconch excavations have shed considerable light on the lives of those who inhabited the area from the 4th to the 7th century. As noted above, late antique archaeology is not just about the changing use of space. At Butrint, it is about the men, women and children who lived, worked, slept, ate, played and died on the shores of the Vivari Channel, participating in the Mediterranean world that was changing around them.

Note

1 The lamps will be discussed in full in the publication of the ceramics from the site.

10 Living and dying at the Triconch Palace in the Middle Ages

William Bowden

As was demonstrated in the previous chapter, the Triconch Palace and Merchant's House areas changed significantly during late antiquity. The archaeological evidence reflects an urban population who initially had access to a wide and varied range of materials and foodstuffs and material culture. In some respects, this access seems to have become increasingly restricted when a more utilitarian and agrarian lifestyle became the norm as the triconch area became a more peripheral zone within Butrint. The presence of multiple child and infant burials in the area, together with other evidence of skeletal pathologies, attests to the poor health of the inhabitants and the increasingly insanitary conditions in which they were living. Nonetheless these inhabitants, or their near neighbours, maintained access to a range of goods from across the Mediterranean until the end of the 6th century.

By the middle of the 7th century, activity had apparently ceased in the triconch area. Like much of Butrint, there is little sign of activity until the later 9th or early 10th century, although discoveries at the Western Defences indicate that some small nuclei within the town continued in use (Kamani 2013). maintaining connections with a wider Mediterranean world. The discovery of the *oikos* on the Vrina Plain demonstrates that aristocratic power seems to have revived earlier outside the town than within it (Bowden and Hodges 2012; Greenslade 2013; Greenslade 2019).

This chapter examines the lives of those who lived within the Triconch Palace and Merchant's House areas between the later 9th and 15th century, after which the site was almost entirely abandoned. Using the evidence for diet, lifestyle, health and material culture, it will attempt to say something about the inhabitants of this part of Butrint rather than the buildings in which they lived or the ways in which space was utilised. As noted in the previous chapter, the terms Triconch Palace and Merchant's House (and the room numbers assigned to parts of the late antique complex) will continue to be used, partly to orientate the reader, but mainly because the late antique buildings on the site, particularly the *domus* itself and the city wall (specifically its gate), continued to structure the ways in which the area was used.

Abandonment (mid-7th to early 10th century: Phase 11)

As discussed in detail elsewhere (Bowden 2011b, 317; Bowden *et al.* 2011b, 119), there is almost no evidence of activity in the triconch area between the mid-7th and late 9th/early 10th century. Questions remain as to whether this absence is partly a result of archaeological visibility (or lack thereof) but it is now clear that activity did occur at Butrint during this period (notably at the so-called Western Defences) (Bowden and Hodges 2012; Kamani 2013). A small number of sherds of pottery that may date from the 7th to late 9th century occurred in later contexts at the Triconch (Bowden *et al.* 2011b, 119), but no clear stratified levels belonging to this phase were recovered.

This absence is also clearly indicated by the coin assemblage. The first coins seen in the triconch area in the 9th century are five coins of Basil I (AD 867–86), of which three belong to the period AD 868–70. Three of the five belong to unstratified topsoil assemblages but the other two (including a silver *miliaresion*) derive from the huge mussel-shell deposit (3020) that spread across the area immediately inside the gate in the city wall (Bowden *et al.* 2011a, 203–5). This deposit seems to relate to the seasonal use of the gate by fishermen (and women) over a long period of time between at least the late 9th century (and possibly earlier), and the later 11th or 12th century. As noted in the previous chapter, this use of the site is strongly reminiscent of the way that areas around Butrint are used today, where sheltered spots are used to cook and shell fresh mussels, which are then taken elsewhere. The location of the processing relates to the proximity of the mussels rather than habitation. Interestingly, however, the presence of coins in these deposits could suggest that those involved in mussel processing were also once more participating in a monetary economy in some way, perhaps relating to the revived administrative presence on the

Vrina Plain (Bowden and Hodges 2012; Greenslade 2013; Greenslade 2019). The isolated find of a silver *miliaresion* of Basil I is interesting in this regard, given that such coins tend to be found in coastal locations associated with trade (see Chapter 7). That monetary activity (and activity in general) in the triconch area remains very limited, however, is suggested by the fact that only a single coin of Leo VI (AD 886–912) was recovered, while coins of this emperor are one of the most common Byzantine issues (constituting 77% of Byzantine coin finds from Dyrrhachium) and made up 70% of the coin assemblage on the Vrina Plain (see Papadopoulou 2012 and this volume). It is thus clear that, as has been argued elsewhere (Bowden and Hodges 2012), the revival of activity at Butrint did not spread to the triconch area until well into the 10th century.

Urban renewal, soldiers and stock rearing? (10th to 12th century: Phases 12 to 13a)

The real renewal of activity in the Triconch and Merchant's House areas took place towards the middle of the 10th century (Figs 1.14, 1.15) (Bowden *et al.* 2011a, 119–44; Bowden *et al.* 2011b, 202–17). New post-built and masonry structures were erected over the west wing of the former Triconch in Rooms 25, 26, 27 and 31, where occupation also included the digging of a substantial stone-lined well through the (by then buried) mosaic pavement of Room 25. In addition, post-built structures were erected in Room 19 of the south wing, including post-holes cut into the levelled tops of the late antique walls. Further post-built structures were noted in Room 18, which again included post-holes cut into the tops of the late antique walls, and in Rooms 22, 23, and possibly 24, also in the south wing. The dating evidence associated with the post-built structures in Rooms 18, 22 and 23 is minimal, but other material suggests that this was the most intensive phase of activity within the medieval Triconch.

The Merchant's House area also saw the creation of post-built structures (including a fairly substantial building over the earlier Room 40), as well as the creation of a gravelled road leading from the gate in the city wall towards the Forum area, the latter suggesting a modest revival of urban infrastructure during the early 11th century and indicating the continued importance of access to the Vivari Channel. This access was also maintained at the eastern end of the Triconch Palace through a second gate in the late antique city wall.

Between the 10th and 12th century there was a major phase of deposition in the Triconch Palace courtyard, with up to one metre of material developing over the courtyard area. The origin of this material is not entirely clear and it is possible that at least some of it was introduced from elsewhere. However, the fact that this material was concentrated in the former courtyard area, rather than extending over the largely levelled remains of the *domus* buildings, suggests that it is the result of waste deposition from wooden buildings surrounding the courtyard area. Also of note is the fact that the burials described below did not extend into the courtyard area. The material recovered from the courtyard deposits had a very wide date range but the majority dated from the 10th to 12th century, with 13 of the 17 medieval coins recovered belonging to the 10th and 11th centuries.

The dating of these phases is of varying reliability, with some elements ascribable to relatively short periods (particularly in the Merchant's House), while others can only be placed in a broad 10th- to 12th-century period. However, there are clear indications of a significant revival of activity in this area in the 10th century, with perhaps its most intensive period lasting until the mid-11th century, with a slight reduction thereafter. This period also saw the renewal of burial in the triconch area, with two coherent groups of burial in Room 17 in the north wing and Room 23 in the south wing, as well as two further outlying burials that may belong to this period. AMS radiocarbon dating suggests that most of these burials belong to the late 9th to early 11th century although it is possible that the burial sequence extends into the 12th century. The presence of these burials may reflect the presence of a possible chapel within the remains of the former triconch *triclinium*, although the dating of the latter is tenuous at best (Gilkes and Lako 2004, 170; Hodges 2011, 321).

It is this quite coherent group of burials that provides some of the clearest information as to the lives of the inhabitants of the triconch area in this period. A total of 19 individuals was identified, including six adults (four male and two female) and 13 sub-adults (two adolescents, seven children and four infants or neonates). This is, of course, significantly different from the late antique burial profile, which was dominated by young children and infants, but it still contains a higher proportion of sub-adults (13/19 = 68%) than would be expected from comparison with similar cemetery populations. Beatrice *et al.* (Chapter 4) note cemeteries from Corinth and Korytiani (in northwest Greece) that show a significantly lower proportion of sub-adults, with 41.8% and 35.1% respectively of skeletons in this group. A similarly high proportion of sub-adults was, however, noted from a cemetery at Xironomi in Boeotia, where the excavators ascribe the high number of sub-adults in the assemblage (with associated pathologies) to weaning stress and limited access to adequate nutrition.

The burials contained two clear clusters – in Rooms 14/17 over the north wing and Rooms 23/24 in the south wing (see Fig. 4.4). Mitochondrial DNA analysis indicates maternal relatedness between two children in the Room 14/17 group (suggesting they were siblings) who also had a relationship through the maternal line with an adult female and an infant in the southern group, although there is no way of knowing how closely related this group was and whether they were buried decades apart. Two other burials in the northern cluster shared an mtDNA haplotype suggesting relatedness with one another. Although it is not clear whether these clusters represent family groupings, the incidence of shared haplotypes is much higher than in the late antique burials, suggesting that the medieval population of the area may have been more settled, with maternally related individuals present for more than one generation.

The lives of these individuals involved strenuous physical activity from an early age. Osteology indicated activity-related biomechanical stress, with skeletons of individuals probably less than 35 years of age showing signs of degenerative pitting of joint surfaces associated with physical stress, and minor signs of such damage present in an individual of 16–20 years old. Equally, defects in tooth enamel indicating childhood nutrition stress were present in 87.5% of the 10th- to 12th-century skeletons and were common to all ages and both sexes. There were also frequent indications of bone showing reactions consistent with systemic infection and/or scurvy and anaemia, with the skeletal evidence showing indications of multiple causes of nutritional deficiency. Malaria, diarrhoeal disease and other parasitic infections may also have been factors in the poor skeletal heath of the population present at the Triconch Palace, although as with the human skeletal remains from late antiquity, it is not possible to say how representative this group was of Butrint as a whole.

Perhaps the most important discovery in the medieval cemetery population at Butrint was the discovery of brucellosis, an infection caused by contact with infected livestock, which was identified conclusively through DNA analysis in a *c.* 13th-century skeleton from the Merchant's House (4015) and a late 11th-century burial (2272) from the Baptistery (see Bowden and Përzhita 2004b, 193). As Beatrice *et al.* note in Chapter 4, this is the first time that the existence of brucellosis has been conclusively identified in an ancient population, although its presence has been suggested elsewhere on the basis of skeletal pathologies. A number of other skeletons from the 10th- to 12th-century population at the Triconch Palace demonstrate these pathologies, which may indicate that the disease was widespread in this period, although the latter were not tested for the brucellosis DNA.

The onset of brucellosis is marked by an intermittent fever accompanied by chills, sweating, and fatigue, and if untreated it can result in chronic infection. The fact that it occurred in two separate locations in Butrint, separated by probably at least 100 years, suggests that it was widespread and resulted from frequent contact with infected livestock. Interestingly, the pathologies associated with it were noted in individuals of early to late adolescence reflecting the likelihood of children and adolescents being involved in animal management from an early age (as is the case in many rural societies).

It is clear that livestock were a continual presence in the lives of the inhabitants of medieval Butrint and this 10th- to 12th-century phase (particularly that from the courtyard) contained the greatest part of the faunal assemblage from the later Middle Ages (see Chapter 3). In contrast to the dominance of sheep/goat in the assemblage in the latter part of late antiquity, pig was again the dominant species, as had been the case in the Roman period. A similar trend can be noted in the medieval assemblage from the Forum (MacKinnon n.d). This stands in contrast to the evidence from the Vrina Plain, in which sheep/goat remained dominant in the 9th- to 12th-century assemblages (Madgwick 2019). Cattle also constituted a slightly greater proportion of the assemblage than they had in late antiquity. The limited age data on the cattle suggest that they were surviving well into adulthood, indicating that their primary function was to supply dairy products rather than meat, although younger examples of all the main domesticates were present, hinting at a more consumer-based assemblage. As in late antiquity, the range of elements present for all domesticates points to the animals either being kept on site or brought in on the hoof for slaughter. Wild animals are also present, including boar and cervids. Birds made up a relatively small constituent of the assemblage, although it is possible that their numbers are affected by recovery bias.

The wild animals include fallow deer, which seem to be a medieval introduction to Butrint. Fallow deer tended to be quite high-status animals that were often emparked rather than wild in this period. The spread of fallow deer was often the result of their being introduced to new areas for high-status hunting practices (Sykes 2006) and their presence at Butrint is particularly intriguing in light of the clear evidence of Byzantine State involvement at the town from the 10th century, evidenced by the discovery of multiple Byzantine seals on the Vrina Plain (see below).

The faunal remains and the evidence for brucellosis indicate that this part of Butrint was inhabited by people who were heavily involved in pastoralism and that animals were a significant presence within the built environment, perhaps within the Triconch courtyard itself. The significant presence of pig is interesting, particularly in terms of its contrast with the medieval assemblage on the Vrina Plain (where occupation was seemingly of a higher status, to judge from the discovery of official Byzantine seals (Bowden and Hodges 2012; Papadopoulou 2012b; 2019), which was dominated by sheep/goat. This is intriguing, given that pigs have no use outside their function as a source of meat and are thus more of a luxury item than cattle and sheep/goats, which can be sources of traction, milk and wool prior to slaughter. The difference between the meat consumption of these two areas could relate to the fact that we are still dealing with very broad chronological periods but it could also point to intra-site variations or differences in culinary practices between different communities. It is not impossible that the high percentage of sheep/goat consumption, at what other material culture suggests is a place of some social and political importance at Vrina, indicates the presence of a household originating from Constantinople or elsewhere in the eastern Mediterranean, where consumption of pork was considerably lower (Kroll 2012). This raises the question of whether the putative *archon* on the Vrina Plain, and his staff and household, were posted directly from Constantinople to administer the imperial domains around Butrint and unsurprisingly continued to favour a familiar cuisine. This can only be a very tentative hypothesis, but the dietary difference between the two sites warrants further consideration and investigation.

Changing cuisines at the Triconch Palace were highlighted by Joanita Vroom (2012), in discussion of the coarse wares from the site which included both wide open dish forms and closed jars, which were clearly both used for cooking. Paul Arthur (2007) has previously proposed that sheep/goat-dominated faunal assemblages correspond with the use of open casserole-type forms, while assemblages dominated by pig/cattle tend to be associated with closed forms, which allow higher temperatures and water retention for longer stewing of meat. Given that both vessel types are present at the Triconch, along with all types of meat, Butrint neither confirms nor denies Arthur's suggestion, although it is worth noting that the range of vessels and the faunal assemblage corresponds to the geographical position of Butrint in Arthur's model.

Although there seems to have been a significant change in the quantities of different types of meat consumed in the triconch area, the archaeobotanical evidence, sparse though it is for this period, suggests consumption of a range of cereals similar to that of late antiquity. No really coherent domestic deposits were identified, but samples from the fill of the well in Room 25 suggested domestic food preparation and consumption in the vicinity, consistent with the picture of relatively small-scale residential occupation of timber structures built over the remains of the late antique *domus*.

Other aspects of the triconch assemblage from the 10th and 11th centuries show clear similarities with that of the Vrina Plain, in particular the marked presence of Otranto amphorae in the ceramics (Vroom 2019, 6–9). The deposits from the courtyard show a very strong preponderance of Otranto material although relatively little table ware was present (in common also with the situation at the Vrina Plain). This indicates that the inhabitants represented in the Triconch Palace deposits had access to a similar range of goods (principally wine) from southern Italy as those on the Vrina Plain. Vroom (2012, 398) argued that Butrint was involved in a 'self-sufficient regional economic system' encompassing both sides of the Adriatic. The difference in the coin assemblage (with the very limited numbers of coins of Leo VI at the triconch area in comparison with the Vrina Plain) suggests that this phase of southern Italian supply happened slightly later in the 10th century at the triconch than it did at Vrina. The early coins from Vrina show a strong connection with Sicily in the 9th century, with coins from AD 820–67 having an exclusively Sicilian provenance (Papadopoulou 2012a; 2019). This Sicilian link is also evidenced by the *Vita* of St Elias the Younger, which records the arrest of Elias and his disciple Daniel (as Muslims and spies) during their journey from Sparta to Sicily between AD 880 and 884 (Rossi Taibbi 1962, XVI, 116 (c. 73): 182). The discovery of a seal on the Vrina Plain dating to the first half of the 10th century and belonging to John, *patrikios*, imperial *protospatharios*, and *strategos* of Sicily, also speaks of this connection, although it should be remembered that this individual would have been based in Calabria from the early 10th century (Papadopoulou 2012b).

The triconch assemblage thus shares some key factors with that of the Vrina Plain, indicating that both were supplied through a mechanism that was locked into Byzantine southern Italy, which in particular supplied bulk goods such as wine. Connections with Constantinople and the eastern Aegean can also be detected through the presence of products such as Glazed White ware from Constantinople (Vroom 2012, 358), although the quantities of the latter present at the triconch are very small, and the quantity of table wares in general is limited in this period. However, in contrast with the Vrina Plain, the supply of coinage at the Triconch Palace is exclusively from Constantinople, until the late 11th/early 12th century, with the greatest number occurring from the mid-10th to mid-11th century, after which there appears to be a short hiatus in supply between around AD 1050 and 1070. Finds from elsewhere in the town suggest that coin supply continued, although evidence from Corinth indicates a more widespread reduction in access to coinage in this period. Papadopoulou (Chapter 7) suggests that coin supply to Butrint may have been sporadic. Although copper *folles* formed the majority of the coins, the 10th- to 11th-century Triconch Palace coins also yielded a gold *tetarteron* of Basil II (AD 976–1025) and a silver *miliaresion* of John I (AD 969–76). Butrint as a whole has produced four *miliaresia* (described by Papadopoulou as an unusually high number), which tend to be found in coastal locations associated with trade. The gold *tetarteron* is highly unusual as a stratified site find. The economic function of these coins is unknown, although they seem to be associated with peripheral regions of the Byzantine Empire.

Other aspects of the finds assemblage reinforce the indications from the ceramic assemblage and coins that suggest access to imported materials could be sporadic and involved only certain products. Finds of glass from this phase are limited, with much of that which does occur in deposits of Phases 12–13 apparently residual material of late antique date. Interestingly, however, this phase produced quite a varied range of dress items (Table 10.1), including copper alloy earrings, finger-rings, buckles (including a possible gilded buckle – Cu alloy cat. 41), strap ends and an anonymous *follis* of AD 976–1030/5 that was apparently pierced for suspension (Cu alloy cat. 13). Of particular note was a very fine copper alloy pendant crucifix (Cu alloy cat. 16) and two silver hoop earrings (Silver cat. 2 and 3), the latter recovered from a grave containing the skeletons of two children, one of which gave a calibrated AMS date of AD 880–1020 (Bowden *et al.* 2011b, 129). The range of utilitarian objects was rather more limited (Table 10.2). No obvious fishing equipment was recovered from this phase. An iron knife and four ceramic spindle whorls/loom weights were present, although some may have been residual. Whether or not that was the case, there is a clear sense of the range of material culture being more restricted in this period than was the case for the late antique phases.

In some ways the assemblage from the 10th- to 11th-century triconch area presents a rather idiosyncratic picture. The skeletal health of the human remains recovered is almost uniformly poor, with multiple indicators of endemic low-level infection and nutritional stress from childhood onwards. It is also clear that the population had significant contact with animals, evidenced by the presence of brucellosis DNA. However, other aspects of the assemblage show access to wine imported from southern Italy, high-value coins and the consumption of considerable quantities of pork, a meat normally associated with higher-status living. It is possible that at least two different groups of people are represented in the cemetery population and the finds assemblage, given that the material covers a long period of time with considerable scope for social, economic and demographic fluctuation. However, one can also note that children were buried with silver earrings and that a contemporary (late 11th-century) inhumation from the nearby Baptistery, which tested positively for brucellosis, was apparently buried with a silver *miliaresion* of AD 1071–78 (Bowden and Përzhita 2004b, 193), showing that at least one individual with poor skeletal health who had close contact with animals could be buried with a silver coin. Interestingly, this practice of placing silver coins in burials (sometimes in the mouth of the deceased in a way that recalled Roman burials) is also noted in medieval burials from Apulia (Arthur 1999), further emphasising the southern Italian connection in this period. The use of silver coins in such circumstances is likely to reflect their use as amuletic or apotropaic devices in burials, as has been recognised in medieval Britain (Gilchrist 2008).

This use of apparently apotropaic devices in the 10th to 12th centuries recalls the evidence of the struggle against the supernatural that characterised the late antique phases of the site. This is also evident in the form of whole cooking pots buried beneath the floors of buildings. A complete 10th-century vessel was found in a small pit in Room 19 (Bowden *et al.* 2011b, 125) while an 11th- to 12th-century pot was recovered from a similar small pit in Room 40 (Bowden *et al.* 2011a, 210–12). Sampling revealed no obvious trace of any contents. This type of concealed pot, often associated with hearths or thresholds, is widely known in Britain and northwest Europe (Gilchrist 2012, 232–4), where the practice of concealing objects within the fabric of buildings survives into the early modern period.

Notwithstanding the evidence of the skeletal material, in some ways it remains hard to say who is represented in the mid-10th- to 11th-century archaeology of the triconch area. The amphorae in particular reinforce the impression from the Vrina Plain that there was some element of official supply by the Byzantine State that allowed those living around the triconch to access bulk goods such as wine imported from southern Italy. It is possible that this related to a small garrison. Certainly something of the sort was in place when Robert Guiscard conquered the town in 1081 (Soustal 2004, 22) and the strategic position of Butrint on one side of the Corfu Strait would warrant such a presence. Furthermore, the major refurbishment of Butrint's fortifications (the Medieval 1 phase) is clearly indicative of a military presence. The date of this refurbishment remains unclear, with Andrews *et al.* (2003) arguing for a 13th-century date, which was then revised to the 11th century by Molla *et al.* (2013), although in the absence of stratified dating both dates remain hypothetical. Although the Medieval 1 phase of fortification seems principally to relate to the creation of a circuit around the acropolis and a separate northern *enceinte*, there is also some evidence of repair of the channel-side fortifications in the area of the triconch. The apparent peak of activity in the 10th and 11th centuries evidenced in the triconch numismatic and ceramic assemblages, the latter in particular giving some suggestion of organised supply, could support the earlier date argued for by Molla *et al*. However, as described below, the Medieval 2 phase of fortification, argued by Molla *et al*. to belong to the 13th century, seems on the evidence of the triconch to be better placed in the 14th century.[1]

Diminishing activity and the severing of the channel link (*c.* 12th to 14th century: Phases 13b to 14a)

The 10th and 11th centuries saw a peak of activity in the medieval triconch area and thereafter it began to diminish (Fig. 1.16) (Bowden *et al.* 2011a, 212–27; Bowden *et al.* 2011b, 144–50). This reduction in activity is particularly marked on the eastern part of the site within the former Triconch Palace area, where the most prominent features are a post-built structure and a large pit in the north wing. Isolated graves over the west wing and in the east portico have also been placed in this period, although dating is difficult. The south wing by this point seems to have been largely buried under a thick dark soil horizon.

The clearest structures from this phase are a series of post-built constructions in the Merchant's House area, together with a number of hearths that produced evidence for blacksmithing in the sheltered areas immediately inside the city wall (Bowden *et al.* 2011b 212–23). There is some indication that the post-built structures are associated with these hearths. Subsequent to this, and certainly after AD 1237, the gate in the city wall in the Merchant's House area was blocked and thereafter a significant depth of black humic soil and rubbish began to develop, along with a number of burials.

This metalworking immediately inside the city gate is perhaps the most clearly defined area of activity within the triconch area. The principal evidence comes from a post-hole fill (4073) which produced evidence of a variety of blacksmithing and other specialised metalworking processes including silver smithing and copper working (including the casting of copper alloy), as well as the working of high-carbon steel (Chapter 5). Other evidence for copper working comes from slightly later deposits in the Merchant's House courtyard. It therefore seems that highly specialised metalworking was taking place immediately inside the gate into the town next to a trackway that led towards the earlier Forum area during the 12th to early 13th century. How long this activity lasted is hard to say but it is possible to imagine a specialist craftsman or woman taking advantage of a position that gave easy access to passing trade.

Although as noted earlier, the dating of deposits between the 11th and 12th centuries is rather blurred (particularly in the central courtyard area of the Triconch), there is a clear reduction in datable material after the 11th century. Coin finds of 12th-century date are much reduced in the triconch area (and in Butrint as a whole in comparison with Athens and Corinth), with only four Byzantine coins of this century recovered as site finds. Papadopoulou (Chapter 7) argues that this indicates that Butrint was not affected by the military activities of this period (including Norman incursions) or by the increasing commercial activity at coastal sites further north, evidenced by numismatic finds from Durrës and Vlora. The recovery of two *denari* of Lucca, dating to 1100–30 and to *c.* 1150 is of interest, given that such coins accompanied the Crusaders and are noted from port sites *en route* to the Levant as well as from hoard finds in the Levant itself.

One of the most striking finds from this period was a coin hoard of 94 *billon trachy* of Manuel Comnenus (1143–80) and Isaac II Angelus (1185–95) (all but three coins dating to the reign of the latter) deposited next to the city wall. It is tempting to link this with the crossing of the Straits of Corfu by the fleet of the Fourth Crusade in 1203 but it is impossible to say, although Papadopoulou (Chapter 7) argues that the increased presence of coins of Isaac II Angelus may relate to the increasing preference of Italian merchants for maritime transport rather than the land route of the Via Egnatia after 1191. Its deposition seems to coincide with the start of a slight revival in terms of Butrint's monetary economy. In terms of the local circumstances of the triconch area, it is possible that it now constituted a peripheral zone away from human habitation and thus suitable for hiding such a cache of coins. Although such hoards are frequently associated with episodes of turbulence (of which Butrint has no shortage in the second half of the 12th century), it may reflect much more individual circumstances that are entirely lost to us.

The 13th century saw continuing (albeit relatively limited) coin supply to the triconch area (in contrast to other excavated sites at Butrint where 13th-century coins are very limited), with the period from the 1280s seeing the switch to Frankish *deniers tournois*, the initial period reflecting Butrint's annexation by the Angevins. Frankish coinage continues to dominate into the 14th century, when it is replaced by that of Venice (see below).

What did this actually mean for the people who were using the triconch area in the 12th to 14th centuries? In some ways the people here are less visible than they were in the previous period and all the evidence points to the area becoming a more peripheral part of Butrint, although those who were using it were clearly participating in a monetary economy to the extent that sufficient coins were in use to allow some to be lost. The archaeobotanical material summarised by Giorgi and Livarda (Chapter 2) indicates that the evidence of domestic food preparation in the triconch area diminishes after the 12th century. Although the data are very limited from this period, the later medieval samples are almost devoid of any food plant remains, suggesting that food preparation in the immediate vicinity was minimal.

The faunal remains also show some divergence from the previous period, although sample sizes for individual phases remain relatively small. While pig continued to remain the predominant species in the Triconch Palace assemblages, the Merchant's House material (which produced almost no 10th- to 11th-century material) shows a dominance of sheep/goat remains in the 12th and 13th centuries and a slight relative increase in the consumption of game. This stands in contrast to the continued dominance of pork in the Triconch Palace area, although sample sizes remain small. As noted above, the Merchant's House assemblage contains greater quantities of game, including red and fallow deer and wild pig as well as smaller game such as hare and rabbit. The presence of all body elements indicates that (as in all phases) both pigs and sheep/goat were being slaughtered on site, although a drop in the percentage of mandibles does suggest some reliance on supply from beyond the site. The sample size is too small to say whether the same is true for cattle, although the element representation of cattle does seem to follow a similar trend to that of pig. As with all phases after the 5th century, the evidence suggests a ruralised population closely involved with animal husbandry. The precise location of this population remains open to question and it is possible that they were living adjacent to, rather than on, the Merchant's House site and that material was being dumped in an area that was seeing little use.

The blocking of the gate in the city wall to the Merchant's House area after the mid-13th to 14th century seems to have curtailed activity in this area significantly. Deposits of dark humic soil developed across the area, covering the workshop area of Room 40 (Bowden *et al.* 2011a, 217–19). The abandonment of the area was followed by the insertion of a series of north–south orientated burials, on the western side of the Merchant's House area, in deposits above the remains of Room 40 (Bowden *et al.* 2011a, 219–23) (Chapter 4). These show the same poor skeletal health as those of the 10th to 12th century described above. They comprised two adult males (one of 25- to 35-years-old and the second in his 20s) and three adolescents (respectively aged 12 to 14 years; 13 to 15 years and 16 to 20 years, the last confirmed as male). Like the skeletons recovered from the previous phase, they show a high incidence of porotic lesions in the cranial vault, associated with conditions such as anaemia and scurvy. A further disturbed burial of a child in Room 38 also exhibited signs of scurvy. The skeletal health of the sample indicated a range of overlapping health issues caused by poor diet and insanitary living conditions (with related parasitical infections). In addition, the 16–20-year-old male (4015), who displayed vertebral lesions consistent with brucellosis, tested positive for *brucella sp.* DNA, demonstrating that this disease remained an issue for the 13th- to 14th-century population of Butrint. Two further skeletons of this group (3018 and 3060), respectively aged 12 to 14 years and 13 to 15 years, also displayed these vertebral lesions, as did an adolescent of 15 to 17 years discovered in an isolated burial (5317) above Room 27 in the west wing of the Triconch Palace (Bowden *et al.* 2011b, 144). The indication is that brucellosis remained endemic within the population, with children becoming infected through working with infected animals from an early age or through consuming milk or cheese from infected livestock.

The small cluster of burials in the Merchant's House, the isolated burial in Room 27 and a further isolated burial in the east portico of the former Triconch Palace courtyard do not seem to be associated with any existing chapel or religious building, although the practice of using abandoned buildings and parts of former urban areas for burial in the mid- to late Byzantine period seems to have been relatively common practice within Greece (Poulou *et al.* 2012). Certainly, human remains of the medieval period have been encountered in many excavated areas in Butrint, with the presence of earlier buildings perhaps serving a protective function, seemingly more significant than proximity to a church, although in many cases ruined Early Christian buildings attracted burials and, as noted above, it is possible that the standing remains of the triconch *triclinium* were viewed in this way.

The overall triconch assemblage reveals a paucity of portable objects from this period, with most of the small number of more distinctive dress items apparently residual late antique artefacts. Most of the metalwork items are small unidentifiable pieces of copper sheet and wire, although a small number of utilitarian items are recognisable including an iron axe-head from the Triconch courtyard (Iron cat. 15). Meanwhile, the Triconch courtyard and the area in front of the blocked gate in the city wall contained considerable quantities of late medieval ceramics (see Vroom forthcoming), but the impression is that this material was introduced from elsewhere, perhaps as a result of waste from nearby dwellings being scattered in the triconch area, possibly as part of a manuring process associated with small-scale cultivation. The most coherent deposit from this period was noted in a rubbish pit (1186) dug into Room 17, which was filled with a rich assemblage of ceramics dating from the mid-13th century and later with proto-maiolica from Italy, emphasising the continued connections with southern Italy (Gilkes and Lako 2004, 173–4; Bowden *et al.* 2011b, 144; Vroom 2004; forthcoming). However, the strong sense from the archaeology of the Triconch Palace area is that the space occupied by the former *domus* was again very much on the fringes of activity at Butrint.

This sense of frequent fluctuation in the nature and extent of occupation at Butrint, and the contraction in occupation at the Triconch Palace after the mid-12th century, perhaps allows a reconciliation of the apparently contradicting accounts of Ibn al Idrisi, who noted mid-12th-century Butrint as a well-populated town with markets (Jaubert 1840, 121), and Roger of Hoveden who describes Butrint as a *castellum desertum* in 1191 (Stubbs 1867, 205).[2] Alternatively, Roger may simply have been referring to the lack of a military garrison at Butrint as there seems to be little evidence of its desertion at this time, notwithstanding the shrinking occupation of the triconch area.

A small Venetian garrison? (*c.* later 14th to 16th century: Phases 14b to 15)

The latest phases of activity seem to revolve around the building of a new tower on the city wall in Room 38/45 of the Merchant's House (Fig. 1.16) (Bowden *et al.* 2011a, 223–8). This tower, constructed in the (probably late) 14th century, was a two-storey construction with an internal stair block. It seems to have formed the focus of Venetian-period occupation from the later 14th to 16th century and may well reflect the presence of a small garrison although, as discussed below, the ceramic, glass assemblage and faunal assemblage also speaks of more elaborate dining than might be expected from soldiers manning a tower.

The Venetian-period material from the triconch is concentrated in the area of this tower, with nine of the 13 Venetian coins from the site coming from contexts from within a few metres of the tower. The interior of the tower itself contained fragments of at least 32 Venetian glass vessels, although this comes from thick deposits that built up on the interior and which may actually post-date the (at least partial) abandonment of the tower. This concentration of Venetian material can also be seen in the ceramic record, with the majority of contexts containing Venetian pottery originating in the immediate vicinity of the tower, from the deep deposits of humic soils excavated in the area immediately to the north of the blocked city gate. While the gridded spits through these deposits were dug in order to try to establish vertical stratigraphy, they also succeeded in defining spatial concentrations of Venetian material around the tower, as well as in the area outside the blocked city gate, creating the impression that the occupants of the tower had simply been scattering rubbish in the immediate vicinity (Bowden *et al.* 2011a, 220, 223–8).

Intriguingly, a further concentration of Venetian material can be seen in the vicinity of the tower at the eastern end of the Triconch Palace complex (Andrews *et al.* 2004, 141–2; Gilkes and Lako 2004, 168, 174), where trial excavations in 1994 revealed a very similar sequence to that which can be seen in the Merchant's House. Two thick deposits of material (1017 and 1033) (both containing maiolicas and proto-maiolicas as well as other Venetian material) built up against a blocked gate, just as was the case in the Merchant's House. One can therefore envisage an analogous situation with the tower to the east of the Triconch (Molla *et al.*'s (2013) Tower E), also occupied (and perhaps constructed) in this early Venetian phase, following the blocking of the gate (Molla *et al.*'s Gate 3) at the same time as the gate in the Merchant's House was blocked.

The strong suggestion of a late 14th-century date for these towers has wider implications for the dating of the different phases of fortification at Butrint. Both Andrews *et al.* (2004) and Molla *et al.* (2013) include these two towers within a major phase of refortification of Butrint (known as Medieval 2), with Andrews *et al.* suggesting a 13th- to 14th-century date (noting the recorded late 14th-century Venetian repairs). The excavated evidence from the Merchant's House also supported a 14th-century date and the tower was suggested to relate to documented repairs following the town becoming a Venetian possession in 1386 (Bowden *et al.* 2011a, 223–7). However, Molla *et al.* have argued that the Medieval 2 phase was associated with an alleged rebuilding of the fortifications under Michael II in 1236 (2013, 267–71). The evidence from the material surrounding the tower reinforces the stratigraphic evidence for the later 14th-century date, although whether this can be extrapolated out to the wider Medieval 2 phase refortification is a matter for debate.

How then is one to envisage the nature of occupation in these towers? As Vroom (forthcoming) describes, the Venetian ceramics from the Triconch Palace indicate diners with access to a considerable range of glazed ceramics from Italy and further afield, reflecting the burgeoning interests in both food flavours and hygiene that was developing in the Venetian world. The low level of coarse wares indicates the preparation of food in metal rather than ceramic vessels, while the inhabitants of the Merchant's House tower consumed wine poured from maiolica jugs into glass goblets. These wine glasses (Medieval glass cat. nos 27–30; Plates 9.3, 9.4) are by far the dominant element of the glass assemblage from this phase, which produced a greater quantity of glass than the 10th- to 13th-century deposits at the triconch, although still only a fraction of that recovered from late antique levels. It is hard to reconcile this apparent increasing culinary sophistication with preconceptions of soldiers manning defences and it may be that in at least some periods the towers were used for more domestic habitation. Glazed ceramic and glass lamps recovered from this Venetian phase indicate the use of artificial light within the tower, while part of an octagonal iron vessel with a monogram was also noted (Iron cat. 18). The concentration of ceramics in the immediate vicinity of the towers suggests either that household waste was literally thrown out of the windows, or alternatively that the towers fell victim to one of the periodic Turkish raids of the later 15th century and the contents were looted and broken. The discovery of a single 16th-century Ottoman coin of Selim I (1512–20) may relate to one of the recorded periods of Turkish control of the town, although a single find says little.

Beyond the plentiful ceramics and glass, a very limited range of portable material culture was recovered from these phases and some of that which was recovered may be residual material of late antique date. However, that which was found included two quite ornate copper alloy objects from the tower itself (Cu alloy cat. 59 and 60), an annular brooch from the courtyard area next to the tower (Cu alloy cat. 31), three iron knife blades (Iron cat. nos. 7, 8, 9), a pair of iron scissors (Iron cat. 12) and an iron arrow head (Iron cat. 16), the latter also from the Merchant's House courtyard, although possibly residual.

The high-quality material culture associated with the tower seems also to be reflected in the faunal assemblage from the Merchant's House in this period. There is a revival in the consumption of pork, when it seemingly overtakes the consumption of sheep/goat, although the sample sizes are too small to say much beyond the fact that both formed a significant constituent of the meat consumed in this period. Element representation from across the triconch area shows a drop in mandibles from both pig and caprines and evidence that particular cuts of the animal were preferred, indicating that a greater percentage of meat was supplied from beyond the immediate locality. Pig mandibles increase slightly at the end of the period, and it is possible to imagine pigs perhaps rooting for the acorns recorded in Venetian sources (Soustal 2004, 25), the latter suggesting the development of the woodland that characterises the site today. Wild mammals also seem to be a more significant element in the Merchant's House assemblage than in the contemporary deposits from the Triconch Palace, constituting between 8% and 11% of the recovered specimens from the 13th to 15th century (compared to between 4% and 6% from the Triconch deposits), while two fragments of peacock recovered from this phase also indicate very high-status dining.

The distribution of material in the Triconch Palace area thus points to occupation of the area around these two towers but little other activity in this period. However, Venetian wares were recovered from topsoil contexts above the north range of the Triconch, suggesting occupation in the area to the north of the Triconch. Additional 14th- to 16th-century material comes from the area of the Baptistery to the east, where a major two-storey townhouse probably relates to this period (Martin 2004, 99), demonstrating further occupation within the walled area of Butrint until the late 16th century. The activity in the area of the two towers is the final episode in the history of the triconch zone. From the late 16th century onwards coin loss ceases entirely and ceramics dwindle to almost nothing as activity focused around the Triangular Fortress and the Venetian tower near the present gate, with Venetian interests focused solely on protecting the lucrative fisheries of Lake Butrint (Davies 2013). At the Triconch Palace and Merchant's House, over 1200 years of intermittent occupation came to an end and the site was left to disappear beneath the burgeoning woodland that now characterises the Butrint peninsula.

Notes

1 In part, the revised dating of Medieval 1 by Molla *et al.* (2013) was predicated on the association of the second major phase of medieval fortification at Butrint (Medieval 2) with the alleged rebuilding of the fortifications under Michael II in 1236 (which Andrews *et al.* suggested as a date for the earlier phase of fortification). However, the tower adjacent to the Merchant's House (which both Andrews *et al.* and Molla *et al.* associated with Medieval 2) can be reasonably placed on stratigraphic evidence in the (late) 14th century and was suggested in the excavation report to relate to documented repairs following the town becoming a Venetian possession in 1386 (Bowden *et al.* 2011b, 227).

2 Roger of Hoveden is now generally recognised as the author of the *Gesta Henrici II et Gesta Regis Ricardi*, previously attributed to Benedict of Peterborough (see Corner 1983).

Appendix 4.1. The human skeletal remains: supplementary material

Jared Beatrice

Table 4.1.1 Summary of the Triconch Palace and the Merchant's House skeletons

	Location		**Dating Evidence**		**Biological Profile and DNA Results**			**Skeletal Palaeopathologies**[a]						
Skeleton	*Structure*	*Room*	*Date*[b]	*Technique*	*Sex*	*Age*[c]	*mtDNA Haplotype*	*Enamel Hypoplasias*	*Porotic Hyperostosis*	*Orbital Lesions*	*Scorbutic Lesions*	*Periosteal Reaction(s)*	*Vertebral Osteoarthritis*	*Brucellosis*
1181	TP	14	10th C.	Relative	-	Late foetal	-	-	0	0	0	0	-	-
1188	TP	17	10th C.	Relative	-	11–13	2	ü	0	ü	0	0	-	?
1189	TP	17	890–1030	AMS ^{14}C	M	30–45	1	ü	✓	-	✓	✓	✓	0
1224	TP	17	10th C.	Relative	-	5–7	2	-	✓	ü	✓	✓	-	0
1225	TP	17	880–1020	AMS ^{14}C	-	4–6	3	ü	ü	-	ü	✓	-	-
1226	TP	17	10th C.	Relative	M	45–60	3	✓	0	0	0	✓	ü	0
1229	TP	17	10th C.	Relative	-	3–6 mos.	1	-	-	-	0	0	-	-
1236	TP	18	6th C.	Relative	F	23–27	1	0	-	-	0	✓	0	0
1241	TP	18	6th C.	Relative	-	3–9 mos.	-	-	0	ü	0	ü	-	-
1259	TP	17	970–1120	AMS ^{14}C	-	10–12	1	-	-	-	-	0	-	-
1264	TP	17	10th–11th C.	Relative	-	6–8	1	-	-	-	-	✓	-	-
1267	TP	18	6th C.	Relative	-	Late foetal	5	-	0	-	0	0	-	-
1406	TP	24	980–1140	AMS ^{14}C	-	3–5	6	0	ü	ü	✓	0	-	-
1434	TP	21	6th–7th C.	Relative	-	4–5	-	-	✓	✓	ü	0	-	-
1456	TP	22	6th C.	Relative	-	Late foetal	1	-	0	0	0	0	-	-
1509	TP	23	10th C.	Relative	-	3–6 mos.	2	-	0	0	0	0	-	-
1512	TP	23	1010–1170	AMS ^{14}C	-	6 mos–1 yr	1	-	0	0	0	0	-	-

1518	TP	23	780–980	AMS ^{14}C	M	40+	1	-	0	0	0	✓	✓	-
1548	TP	24	7th C.	Relative	-	Late foetal	8	-	0	-	0	0	-	-
1764	TP	16	13th–14th C.	Relative	M	25–35	-	✓	0	0	0	0	ü	0
1782	TP	25	6th–7th C.	Relative	-	6 mos–1 yr	-	-	✓	✓	✓	✓	-	-
1791	TP	28	10th C.	Relative	F	20–30	-	0	ü	0	0	0	0	0
3018	MH	40	1040–1260	AMS ^{14}C	-	12–14	1	0	✓	-	0	0	-	?
3023	MH	40	1020–1210	AMS ^{14}C	M	25–35	1	-	✓	-	0	0	0	0
3060	MH	40	1280–1410	AMS ^{14}C	-	13–15	1	-	-	-	-	0	✓	?
3122	TP	22	6th C.	Relative	-	6 mos–1 yr	1	-	-	✓	✓	0	-	-
3126	TP	22	6th C.	Relative	-	6–9 mos.	1	-	✓	✓	✓	✓	-	-
3396	MH	40	13th–14th C.	Relative	M	20–25	-	✓	0	-	0	0	0	0
4015	MH	40	13th–14th C.	Relative	M	16–20	-	✓	✓	-	0	✓	ü	✓
4044	MH	40	6th C.	Relative	-	Late foetal	-	-	0	-	0	0	-	-
4138	MH	45	13th–14th C.	Relative	-	5–7	-	0	✓	✓	ü	0	-	0
4151	MH	38	6th–7th C.	Relative	-	6 mos–1 yr	-	-	0	-	0	0	-	-
5010	TP	23	980–1150	AMS ^{14}C	F	35–45	2	✓	0	0	0	✓	✓	0
5043	TP	18	6th C.	Relative	-	1–2	1	ü	✓	✓	✓	0	-	-
5075	TP	18	6th C.	Relative	-	Late foetal	-	-	0	0	0	0	-	-
5111	TP	18	6th C.	Relative	-	3–9 mos.	1	-	0	0	0	0	-	-
5189	TP	18	890–1030	AMS ^{14}C	-	12–15	7	✓	✓	✓	✓	✓	-	0
5319	TP	27	13th–14th C.	Relative	F	15–17	-	✓	✓	0	0	✓	-	?
5324	TP	35	10th C.	Relative	-	4–5	-	-	-	-	0	ü	-	0
5384	TP	29	6th C.	Relative	-	2 mos.	-	-	0	0	0	-	-	-
5631	TP	20	6th C.	Relative	-	4–6	4	0	✓	-	0	0	-	-
5641	TP	20	6th C.	Relative	-	Late foetal	1	-	0	-	0	0	-	-

[a] ✓= present; 0 = absent; ? = exhibits lesions consistent with the condition, but testing for pathogen DNA has not been performed; hyphen = not scored due to age or to absent/unobservable skeletal elements.

[b] All dates are AD.

[c] All ages are in years unless otherwise indicated.

Postcranial measurements and stature estimates of the Triconch Palace and the Merchant's House skeletons

Living stature was estimated using the formulae for Americans of European ancestry from Trotter and Gleser (1952). While not specific to Balkan populations, these formulae could be applied consistently to males and females and to all adult long bones in the Triconch Palace and the Merchant's House skeletal samples. Published stature estimation formulae derived from modern skeletal samples from the Balkans are currently limited to males and to a subset of long bones. Measurements from the right side were used when available. A correction factor (subtraction of 10 mm from the maximum length) was applied to estimates using the tibia.

Table 4.1.2 Post-cranial and stature estimates from the Triconch Palace skeletons

Skeleton	*Sex*	*Age*[a]	*L. Humerus*[b]	*R. Humerus*	*L. Radius*	*R. Radius*	*L. Ulna*	*R. Ulna*	*L. Femur*	*R. Femur*	*L. Tibia*	*R. Tibia*	*L. Fibula*	*R. Fibula*	*Estimated Stature (cm)*[c]
1181	-	Late foetal	**66**	-	**54**	-	**61**	-	**73**	-	**65**	**66**	-	-	-
1188	-	11–13	-	**240**	**178**	**178**	**195**	-	**334**	**334**	-	**267**	-	-	-
1189	M	30–45	328	333	-	-	-	274	471	473	387	383	356	371	170.7–177.3
1224	-	5–7	-	-	-	-	-	-	-	-	-	**188**	-	-	-
1225	-	4–6	**156**	-	-	-	-	-	-	-	-	-	-	-	-
1226	M	45–60	325	320	-	-	-	-	-	455	-	355	-	-	166.4–173
1229	-	3–6 mos.	-	-	-	-	-	-	**100***	-	-	-	-	-	-
1236	F	23–27	275	-	-	210	-	225	415	395	322	320	-	-	147.9–155.4
1241	-	3–9 mos.	-	-	**66**	-	-	**74**	**106**	**107**	-	-	-	-	-
1259	-	10–12	-	-	-	-	-	-	-	-	-	-	-	-	-
1264	-	6–8	-	-	-	-	-	-	-	**292**	-	-	-	-	-
1267	-	Late foetal	-	-	-	-	-	-	-	**66**	-	-	-	-	-
1406	-	3–5	-	**131**	-	-	-	-	-	**175**	-	-	-	-	-
1434	-	4–5	-	-	-	-	-	-	-	-	-	-	-	-	-
1456	-	Late foetal	-	-	-	-	-	-	-	-	-	-	-	-	-
1509	-	3–6 mos.	-	**83**	-	**65**	-	-	-	**103**	-	-	-	-	-
1512	-	6 mos–1 yr	-	-	-	-	-	**88**	-	-	-	-	-	-	-
1518	M	40+	-	268	206	206	-	-	-	-	325	-	-	-	154.6–161.4
1548	-	Late foetal	**65**	**65**	-	-	-	-	**72**	**72**	-	**62**	-	-	-
1764	M	25–35	321	321	252	251	268	270	446	442	365	385	362	363	163.3–169.9
1782	-	6 mos–1 yr	-	-	-	-	-	-	-	-	**104**	-	**94**	-	-
1791	F	20-30	324*	328	-	-	-	-	-	-	371	-	-	-	162.6–169.9
3122	-	6 mos–1 yr	-	-	-	-	-	-	-	**117**	-	-	-	-	-
3126	-	6–9 mos.	-	-	-	-	-	-	-	**112**	**96**	**96**	-	-	-
5010	F	35–45	-	-	-	220	-	236	-	-	-	-	-	-	154.2–162.8
5043	-	1–2	-	**112**	-	-	-	-	**141**	-	-	-	-	-	-
5075	-	Late foetal	**72**	**72**	**58**	**59**	**65**	**66**	**83**	**83**	-	-	-	**67**	-
5111	-	3–9 mos.	-	-	-	-	**67***	-	-	-	-	-	-	-	-
5189	-	12–15	**231**	**235**	**182**	**181**	**201**	**202**	**330**	**330**	**275**	**275**	-	-	-
5319	F	15–17	-	-	-	-	-	-	-	-	-	-	-	-	-
5324	-	4–5	**172**	**176**	**129**	**131**	**139**	**143**	**232**	**234**	**184**	**184**	**187**	**185**	-
5384	-	2 mos.	**72**	**72**	-	**59**	-	**67**	-	-	-	-	-	-	-
5631	-	4–6	-	-	-	-	-	-	-	-	-	-	-	-	-
5641	-	Late foetal	**59**	**60**	**49**	**49**	-	**56**	**69**	**68**	**58**	**58**	-	**48**	-

[a] All ages are in years unless otherwise indicated.

[b] All measurements are maximum lengths rounded to the nearest millimetre. Values in bold are diaphyseal lengths.

[c] Shaded cells indicate measurement used to estimate stature.

*Measurement is an estimate.

Table 4.1.3 Post-cranial and stature estimates from the Merchant's House skeletons

Skeleton	*Sex*	*Age*[a]	*L. Humerus*[b]	*R. Humerus*	*L. Radius*	*R. Radius*	*L. Ulna*	*R. Ulna*	*L. Femur*	*R. Femur*	*L. Tibia*	*R. Tibia*	*L. Fibula*	*R. Fibula*	*Estimated Stature (cm)*[c]
3018	-	12–14	-	-	-	-	-	-	-	-	-	-	-	-	-
3023	M	25–35	-	-	-	-	-	-	-	-	-	-	-	-	-
3060	-	13–15	-	280	-	-	-	-	440	440	-	352	-	-	-
3396	M	20–25	326	330	243	248	-	266	-	-	371	-	-	-	166.2–173
4015	M	16–20	323	329	228	225	251	254	-	-	-	-	-	-	167.7–175.8
4044	-	Late foetal	-	**63**	-	**53**	-	**60**	**75**	**74**	**65**	**65**	**61**	**62**	**-**
4138	-	5–7	-	-	**127**	-	-	-	-	-	-	-	-	-	-
4151	-	6 mos–1 yr	**90**	**90**	-	-	**79**	**79**	**112**	**110***	**92**	**93**	-	-	-

[a] All ages are in years unless otherwise indicated.

[b] All measurements are maximum lengths rounded to the nearest millimetre. Values in bold are diaphyseal lengths.

[c] Shaded cells indicate measurement used to estimate stature.

*Measurement is an estimate.

Appendix 4.2. Summary of the human skeletal remains from the Baptistery

Jared Beatrice

The human skeletal material from the Baptistery was recovered during the limited excavations carried out in the area of the Baptistery from 1994 to 1998 (Bowden and Përzhita 2004). Most was found in the baulks of trenches from earlier excavations that were removed in the hope of recovering stratified dating material. The most complete burials were recovered from grave 2271.

Skeleton/context number: 2250
Minimum number of individuals: 3
Individual #1
Sex: Male (vertical diameter of humeral head (Bass 2005))
Age: Adult (all epiphyses exhibit complete union; cortical thickness is consistent with adult bone)
Stature: 164.5–173.1 cm (left ulna maximum length (Trotter and Gleser 1952))
Skeletal inventory: Skeletal elements present include a fragment of the acromion process of the left scapula, two left ribs along with two additional unsided rib shaft fragments, the dens of the second cervical vertebra, one unseriated cervical vertebra fragment, one thoracic centrum, one complete lumbar vertebra and one additional lumbar centrum, the left humerus (represented by the proximal end along with a fragment of the distal shaft), the left ulna, the right ulna (missing the proximal end), the right radius (missing a portion of the shaft), the left radius (missing the distal end), two proximal hand phalanges, a fragment of the proximal shaft of the right femur, a fragment of the distal shaft of the left femur, and the left second and fifth metatarsals.
Metric assessment:
Left humerus: vertical head diameter = 50 mm
Left ulna: maximum length = 256 mm
Pathologies: The distal end of the left second metatarsal exhibits a healed fracture. Minor osteoarthritis is present on the articular surfaces of the left fifth metatarsal. The centrum of the thoracic vertebra exhibits osteophytic lipping as well as a possible lytic lesion measuring 21 mm by 2.5 mm. The lumbar centrum fragment also exhibits osteophytic lipping.

Individual #2
Sex: Indeterminate
Age: 7–11 years (comparison of estimated diaphyseal lengths and cortical thickness with Skeleton 1188)
Skeletal inventory: The right ulna is present and complete except for the proximal end. The right radius is represented by the distal end and the left radius is complete except for the distal end.
Pathologies: None

Individual #3
Sex: Probable female (epicondylar breadth of humerus (Spradley and Jantz 2011))
Age: Adult (epiphyses exhibit complete union)
Skeletal inventory: Skeletal elements present include a mostly complete right humerus (missing the proximal end) and a left ulna represented by the proximal end.
Metric assessment: Right humerus: epicondylar breadth = 56 mm
Pathologies: None

Skeleton/context number: 2268
Minimum number of individuals: 1
Sex: Indeterminate
Age: Adult (skeletal elements are consistent in size, morphology, and thickness with adult bone)
Skeletal inventory: Elements present include the left zygomatic, a fragment of the frontal bone, and three additional cranial fragments.
Pathologies: None

Skeleton/context number: 2272
Minimum number of individuals: 3
Individual #1
Sex: Male (sciatic notch morphology (Buikstra and Ubelaker 1994; Walker 2005))
Age: 18–30 (fusing medial clavicular epiphysis; recent completed annular ring union of cervical and thoracic vertebrae (Scheuer and Black 2004))
Skeletal inventory: Skeletal elements present include the left scapula (represented by the scapular spine, glenoid fossa, and acromion process), the right scapula (represented by the scapular spine, glenoid fossa, and coracoid process), the left clavicle, four right ribs and one left rib, cervical vertebrae #1, #2, and #7 along with two cervical vertebrae from C-3 to C-6, five fragmentary thoracic vertebrae, four lumbar vertebrae including L-5, one fragment of the sacrum, the right innominate (missing the pubis and iliac crest), a fragment of the left innominate exhibiting a portion of the auricular surface, the left and right humeri, the left and right ulnae, the left and right radii, the right fifth metacarpal,

the right femur (missing the distal end and greater trochanter), the left femur (represented by the head, proximal shaft, and distal shaft), the left patella, the left and right tibiae (each missing the distal end), the left and right fibulae (each missing the proximal end).
Metric assessment:
Left humerus: vertical head diameter = 45.4 mm
Right femur: maximum head diameter = 45.2 mm; midshaft circumference = 91 mm
Left femur: maximum head diameter = 44.5 mm
Pathologies: None

Individual #2
Sex: Male (pelvic morphology (Phenice 1969; Buikstra and Ubelaker 1994; Walker 2005))
Age: 16–21 (recent completed union of proximal humeral epiphyses, right distal ulnar epiphysis, and proximal tibial epiphyses; unfused left distal ulnar epiphysis and radial distal epiphyses; annular rings of thoracic centra are fusing (Scheuer and Black 2004); pubic symphysis morphology (Phase 1, Brooks and Suchey 1990))
Stature: 162.9–169.4 cm (right femur maximum length (Trotter and Gleser 1952))
Skeletal inventory: This mostly complete individual is represented by a fragmentary cranium, the mandible, the left and right scapulae (each missing a portion of the medial border), the left and right clavicles, twelve left and twelve right ribs, fragments of the manubrium and sternum, all seven cervical vertebrae, all thoracic vertebrae except for T-2, all five lumbar vertebrae, the sacrum, the left and right innominates, the left and right humeri, the left and right radii, the left and right ulnae, all right carpals, all metacarpals except for the left fifth, nine proximal hand phalanges, two intermediate hand phalanges, one distal hand phalanx, the left and right femora, the left and right patellae, the left and right tibiae, the left and right fibulae, all left and right tarsals except for the second cuneiforms, all metatarsals except for the left first, one unsided proximal foot phalanx, and one unsided distal foot phalanx. Seventeen teeth are also present: #1–#3, #14–#16, #18, #19, #21, #22, and #26–#32.
Metric assessment:
Right humerus: maximum length = 299 mm; vertical head diameter = 46.8 mm
Left humerus: maximum length = 297 mm; vertical head diameter = 46.8 mm
Right radius: maximum length = 242 mm
Left radius: maximum length = 236 mm
Right ulna: maximum length = 208 mm
Right femur: maximum length = 440 mm; maximum head diameter = 46.7 mm; midshaft circumference = 81 mm
Left femur: maximum length = 445 mm; maximum head diameter = 46.5 mm; midshaft circumference = 84 mm
Right tibia: maximum length = 384 mm
Left tibia: maximum length = 396 mm
Right fibula: maximum length = 375 mm
Pathologies: Samples of bone from the vertebrae and ribs of this skeleton tested positive for DNA of *Brucella* spp., the causative agent of brucellosis. The skeleton exhibits a number of alterations associated with brucellosis infection. These include cavitating lesions on the anterior surface of the vertebral bodies of T-3 to T-12, L-1, L-2, and L-4; bilateral retroauricular lesions on the sacrum; cortical expansion and abnormal porosity on the external surface of most ribs; expansion of the distal femoral, tibial, and fibular metaphyses; abnormal porosity and sclerotic bone on the anterior surface of the femoral necks and the posterior aspect of the femoral distal shafts superior to the condyles; periosteal reactions affecting the shafts of the femora and tibiae; and additional abnormal porosity and coalescence of trabecular bone on the superior aspect of the left and right calcanei.
Additional palaeopathological conditions less likely to be associated with brucellosis infection include a linear enamel hypoplasia on tooth #27 and patch hypoplasias on teeth #22 and #27, evidence of periodontal disease, and porotic hyperostosis on the right parietal.

Individual #3
Sex: Female (cranial morphology (Buikstra and Ubelaker 1994))
Age: Older adult (advanced tooth wear (Smith 1984))
Skeletal inventory: This individual is represented only by a nearly complete skull. Skeletal elements present include the left and right temporals, the occipital, the left and right parietals, the right portion of the frontal, the right zygomatic, the left and right nasals, and a mostly complete mandible. Two teeth are also present: #19 and #20.
Pathologies: Tooth #19 exhibits cervical caries and wear scored at stage 8. Tooth #20 exhibits multiple pit hypoplasias, smooth surface caries distally, and is associated with a periapical abscess. Teeth #18, #21, and #30–#32 were lost antemortem.

Skeleton/context number: 2288
Minimum number of individuals: 1
Sex: Indeterminate
Age: Adult (all epiphyses exhibit complete union; cortical thickness is consistent with adult bone)
Skeletal inventory: This individual is represented only by the lower limbs. Skeletal elements present include the right tibia (missing the medial condyle and a fragment of the medial malleolus), the left tibia (missing a portion of the proximal end), the right fibula (missing a portion of the proximal end), the left fibula (represented by the distal two thirds of the shaft), the right calcaneus and talus, the left navicular, and the left second and third metatarsals.
Metric assessment:
Right tibia: maximum length = 345 mm (estimate due to missing medial malleolus)
Pathologies: None

Appendix 6.1. Catalogue of coins from the Triconch Palace and Merchant's House, up to c. AD 600

T. Sam N. Moorhead

Notes:

a) For weights, diameters, die axes, wear analysis and more detailed descriptions, there is a database of all coins available from the Butrint Foundation.

b) The catalogue is numbered up to 1105, but the presence of 24 coins (found in store after report written) with letter affixes makes the total 1129.

Greek and Roman coins prior to *circa* AD 300

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
A. Greek Coins						
1	Thessalian League AE 17/18mm; 12; 6.04g Obv. Laur. hd. of Apollo r. Rev. ΘΕΣΣΑ / ΛΩΝ; Athena Itonia r.; to r., ?HP monogram	?Larissa	196–46 BC	see *BMCG* 50	5301/3002	
1a	AE 19/21mm; ?12; 7.27g Obv. Head of Herakles r. Rev. ?prow r.	Corcyra	229–48 BC	*c*.f. *BMCG* 482ff.		Conservation 2005
B. Roman Imperial and Provincial						
2	Augustus M. Maecilius Tullus, AE As, 8.74g Obv. … AVGVST PONT MA …; head r. Rev. M MAEC(ILIVS)[TVLLVS III VIR A]AAFF around S C	Rome	27 BC–AD 14 (7 BC)	*RIC* 435; Giard 654	1114/123	
3	Commodus AE Sestertius, 14.33g Obv. [ ]; laur. hd. r. Rev. [PM TR P VIII / X IMP VII COS IIII P P, VICT BRIT] S C; Victory std. r., inscribing shield	Rome	AD 180–92 (AD 184/5)	*RIC* 440 and 451–2	1574/900	
4	?Antonine, AE 13/14, 1.85g Obv. …; laur. and bearded hd. r. Rev. …; ?mountain	?Cappadocia: Caesarea	2nd AD		1009/473a	
5	?Antonine, Imperial or Provincial AE 23; 8.21g Obv. traces of bearded bust r. Rev. ?		2nd AD		1114/909	
6	Julia Domna, AE 28; 13.51g Obv. [IOV]ΛΙΑΔ(O?)–…; dr. bust r. Rev. ΘεΜΙC–ΙΩεΩ; Demeter stg. hdg. torch in each hand, between corn ear and poppy	Phrygia: Themisonium	AD 193–217	SNG von Aulock, 4017; Sear 1982, 2419	1557/819	
7	??Septimius Severus, ?Roman Provincial AE 20/21; 3.49g Obv. ?bearded bust r Rev.Possibly Nike		AD 193–211		5630/3293	
8	Antonine or Severan ?Roman Imperial or Provincial AE quarter of coin, orig *c*. 28mm; 2.37g Obv. Rad r. with dotted hair Rev. ?		2nd to 3rd AD		1411/831	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
9.	?Gallienus AE/Billon radiate; 18/21mm; 2.53g Obv. ?GALL[IENVS] AVG; ?rad. bust r. Rev. ?		AD 253–68		3391/1202	
9a	AE/Billon radiate; (16)/21mm; 2.33g Obv. (VS AVG?); unclear bust Rev. (TAS AVG?); ?Felicitas stg. l				5572/3303f	
***C.* Miscellaneous uncertain coins, 3rd century BC to probably pre-AD 300**						
10	AE 15 Obv. ?Dionysus or female head Rev. ?horseman r.		4th BC–3rd AD		5100/2300	
11	AE 18/20 Obv. bust r. Rev. ?man stg. hdg. up branch				2092/1181	
12	AE 20/21 Obv. and Rev. ?		Pre-*c.* AD 250		5264/2802	
12a	Greek to Roman Provincial AE 21 Obv. and Rev. ?				1895/1092	
12b	AE 19/21 Obv. …; unclear bust r. Rev. ?				5333/3324	

Late Roman coins, *post* AD 310

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	AE Reduced Follis (20mm): **IOVI CONSERVATORI**; Jupiter stg. l., hdg. Victoriola; eagle to l.					
13	?Licinius I		*c.* 311–18		1849/1083	
	AE 3: **SOLI INVICTO COMITI**; Sol stg					
14	Constantine I	Trier T*/F//TARL	316	*RIC* VII, 79ff	1009/59	
	AE 3: **PRINCIPI IVVENTVTIS**; Prince stg.					
15	Crispus (C)	?	317		1009/3	
	AE 3: **PROVIDENTIAE AVGG**; Camp–gate with 3 turrets and 6 layers					
16	?	Heraclea	316–20	*RIC* VII, 16ff	1114/2105	
	AE 3: **D N CONSTANTINI MAX AVG**; wreath around **VOT / XX**					
17	Constantine I	Thessalonica //TSAVI	320	*RIC* VII, 88	5327/3039	
	AE 3: **??VICTORIAE LAETAE PRINC PERP**; two Victories stg.					
18	?	?	?*c.* 320		4018/2457	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	AE 3: **CAESARVM NOSTRORVM**; wreath enclosing **VOT / V**					
19	Constantine II (C)	Rome //RS	321	*RIC* VII, 236	5301/3002	
	AE 3: **CAESARVM NOSTRORVM**; wreath enclosing **VOT / ?V**					
20	?Crispus	?	*c.* 320–24		4100/2683	
	AE 3: **CAESARVM NOSTRORVM**; wreath enclosing **VOT / X**					
21	Constantine II (C)	?	*c.* 320–24		3027/2143	
	AE 3: **PROVIDENTIAE CAESS**; Camp–gate with two turrets; star above					
22	Constantine I	Thessalonica - //SMTS(Γ?)	326–28	*RIC* VII, 154	1606/2301	
23	Son of Constantine I	?	324–28		5362/3178	Star unclear
	AE 3: **GLORIA EXERCITVS**; two soldiers and two standards					
24	Constantine I	Thessalonica /SMTSA	330–36	*RIC* VII, 183/198	2256/57	
	AE 3 or 4: **GLORIA EXERCITVS**; two soldiers and one standard					
25	Constantine I	?	335–37		5140/2631	
26	?	?	335–41		5331/3061	
	AE 4: **VICTORIAE DD AVGGQ NN**; 2 Victories (Type as *LRBC* 137)					
27	?	Thessalonica or west	347–48		5362/3210	Palm-leaf//?
28	Constans	?	347–48		5199/2681	
	AE 4: **VOT / XX / MVLT / XXX** in wreath					
29	Constantius II	?	347–48	Type as *LRBC* 958	5362/3176	
	AE 2: **FEL TEMP REPARATIO**; soldier adv. l., spearing fallen horseman (details unclear)					
30	Constantius II	?	348–early 350s		3028/2005	
31	?	?	348–55		5133/3162	
	AE 2: **FEL TEMP REPARATIO**; soldier adv. l., spearing fallen horseman, who is bare-headed and is falling forwards over horse					
32	Constantius II	Antioch Γ -//ANI	350–55	*RIC* VIII, 135	4057/2497	
	AE 2: **FEL TEMP REPARATIO**; soldier adv. l., spearing fallen horseman, who looks back and extends l. arm					
33	Constantius II	Nicomedia //SMNS	351–55	see *RIC* VIII, 89	unstrat/1125	
	AE 2/3: **FEL TEMP REPARATIO**; soldier adv. l., spearing fallen horseman, who falls forwards over horse					

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
34	?Julian II	?	355–61		5579/3252	
	AE 3: **FEL TEMP REPARATIO**; soldier adv. l., spearing fallen horseman The following are AE 3 module pieces, ranging from about 14 to 16mm in diameter which were probably struck between 355–61. They appear to be regular issues.					
35	Constantius II	Nicomedia /SMNΓ	355–61	*RIC* VIII, 104	3325/2161	Horseman faces soldier and extends l. arm
36	Constantius II	?	355–61		unstrat/1143	?Horseman falls over front of horse
37	Constantius II	Probably eastern M - //?	355–61		4057/2643	Horseman details unclear
38	Constantius II	?	355–61		2069/1145	Horseman details unclear
39	Constantius II	?	355–61		5449/3201	Horseman details unclear
40	Constantius II	?	355–61		3325/2166	Horseman details unclear
41	Julian (C)				1139/463	Horseman details unclear
	Barbarous: **FEL TEMP REPARATIO**; soldier adv. l., spearing fallen horseman (details unclear) The following coins are AE 3 or AE 4 coins which are mostly likely to be barbarous copies. They are contemporary with the official issues of 355–61.					
42	‘Constantius II’	?’Thessalonica’ ?A - //T?			1300/944b	
43	‘Constantius II’	?’Eastern’ M -//?			1300/977	
44	‘Constantius II’	?			1876/1081	
45	‘Constantius II’	?			3192/5449	
46	?	?			5571/3254b	
47	?	?			5630/3295	
48	?	?			2341/546	
49	?	?			1823/1096	
	Probable **FEL TEMP REPARATIO**; soldier adv. l., spearing fallen horseman (details unclear) The following are generally small module coins which are probably of this type. The majority are likely to be barbarous copies. All date to 355–61.					
50	? ‘Constantius II’	?			5074/2534	
51	?	?			5408/3144	
52	?	?			1450/622	
53	?	?			1515/778	
54	?	?			4056/2600	
	AE 3: **SPES REI PVBLICE**; emperor stg. l. with globe and spear					
55	?	Constantinople (C) - //CONS[ ]	355–61	*RIC* VIII, 153–4	4056/2597	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
56	Constantius II		355–61		5630/3292	
57	Constantius II		355–61		4029/2427	
58	Constantius II		355–61		5409/3166a	
59	?Constantius II		355–61		1114/997	
60	?		355–61		5199/2681b	
	AE 3: **?SPES REI PVBLICE**; emperor stg. l. with globe and spear					
61	?Constantius II	?	355–61		2153/2160	
62	?Constantius II	?	355–61		4129/2658	
63	?	?	355–61		3059/2010	
	AE 3: **Uncertain Vota coins**:					
64	?Julian	?	?pre-364		1009/55	
65	?	?	?pre-364		5343/3142	
	AE 3: **GLORIA ROMANORVM**; Emperor adv. r., hdg. standard and dragging captive. All date between 364–78					
66	Valens	Thessalonica P */ - B//TES	367–75	*LRBC* 1787var	5302/2842	Only recorded for Gratian
67	Valens	Thessalonica V B//[TES]	367–75	*LRBC* 1796	1772/938	
68	?	Constantinople [ ]//CONSB	364–78	see *LRBC* 2089ff	1196/531	
69	?	Aquileia or Thessalonica - *//?			1890/1085	
70	Valens	?			unstrat/2647	
71	Valens	?			5630/3294	
72	?Valens	?			1300/825	
73	Gratian or Valentinian II	?			5343/3123	
74	?	?			5302/2846	
75	?	?			5630/3291	
76	?	?			4018/2434	
76a	?	?			5640/3301c	
	AE 3: **?GLORIA ROMANORVM**; Emperor adv. r., hdg. standard and dragging captive					
77	?	? -Γ//?	364–78		1149/717	
78	Valentinian I or Valens	?	364–78		4100/2659	
79	?	?	364–78?		5630/3284	
80	?	?	364–78		1300/460p	
	AE 3: **SECVRITAS REI PVBLICAE**; Victory adv. l., hdg. wreath and palm. All date between 364–78					
81	Valens	?Aquileia //? (*SMAQ.)	364–67	see *LRBC* 1006	1300/963	
82	Valens	Thessalonica Δ - //TES	367–75	*LRBC* 1796	1885/1078	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
83	Gratian	?Thessalonica ?//(.ES?)			3042/2003	
84	?	Antioch //[ ]NT[	364–78	see *LRBC* 2656ff	4001/2380	
85	?	?Alexandria //(A?)L?	364–78		1227/522	
86	Valentinian I	?	364–75		1823/1094	
87	Valens	?	364–78		1767/941	
88	Valens	?	364–78		3398/2177	
89	?Valens	?	364–78		1114/530	
90	?	?	364–78		1300/449a	
91	?	?	364–78		1300/460n	
92	?	?	364–78		1300/460v	
93	?	?	364–78		1300/460z	
94	?	?	364–78		4001/2381	
95	?	?	364–78		4064//2418	
	AE 3: **?SECVRITAS REI PVBLICAE**; Victory adv. l., hdg. wreath and palm. All date between 364–78					
96	?	? – inverted Γ? //?	364–78		4078/2475	
97	?	?	364–78		1152/50	
98	?	?	364–78		1194/531	
99	?	?	364–78		1300/887	
100	?	?	364–78		1572/849	
101	?	?	364–78		3325/2172	
102	?	?	364–78		4018/2429	
103	?	?	364–78		5074/2540a	
104	?	?	364–78		2112/	
105	?	?	364–78		unstrat	
	AE 3: **?Valentinianic**, 364–78: Uncertain reverses					
106	?	?			1829/3256	
107	?	?			1300/995	
108	?	?			3105/2566	
	AE 3: **?Constantius II or Valentinianic**, *c.* 355–78: Uncertain reverses					
109	?	?			5360/3281	
110	?	?			?1300/461kk	
111	?	?			1422/765	
	AE 3: **?Constantius II or Valentinianic**: unclear figure					
112	?	?			3159/2061	
	AE 4: **Vota types**, AD 379–88 These types appear to have been mostly struck in the early 380s, mainly in 383. Both *RIC* and *LRBC* offer a variety of dates for different mints. Therefore, I do not attempt to provide precise dates.					
	AE 4: **VOT / XX / MVLT / XXX** in wreath					
113	?	Heraclea or east			4056/2640	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
113a	?	?			4056/2653	
	AE 4: **?VOT / XV / MVLT / XX** in wreath					
114	?	?			5045/2324	
	AE 4: **VOT / X / MVLT / XX** in wreath					
115	Theodosius I	Thessalonica //TES		*LRBC* 1841	5302/3201	
116	Valentinian II	Cyzicus //..(KB)		see *LRBC* 2556	5208/2690a	
117	Arcadius	Alexandria//ALEΔ		*LRBC* 2891–2	5199/2681o	
118	Theodosius I	?//…(Γ?)			unstrat/450b	
119	?Theodosius I	?			1300/469	
120	?Theodosius I	?			1759/1002	
121	?Theodosius I	?			5408/3145	Rev. style unusual, in faint wreath
	AE 4: **?VOT / X / MVLT / XX** in wreath					
122	Theodosius I	?Thessalonica //?(TES)		see *LRBC* 1841/46	1553/812	
123	?Theodosius	?			1300/832	
	AE 4: **VOT / X / MVLT / X (X or V)** in wreath					
124	?Valentinian II	?			3156/2067	
	AE 4: **VOT / V** in wreath					
125	?Valentinian II or Arcadius	?Cyzicus //SM(K?)		see *LRBC* 2560/62	5302/2845	
126	Arcadius				5327/3107	
	AE 4: **?VOT / V** in wreath					
127	Arcadius	?			1300/833	
128	?Arcadius	?			1300/944c	
	AE 4: **Uncertain Vota types**					
129	Valentinian II	?			5302/2839	
130	Theodosius I	?			5343/3133b	
131	?	?			5630/3296	
132	?	?			1521/830	
133	?	?			5014/5028	
134	?	?			4100/2530a	
	AE 4: **GLORIA REI PVBLICAE**; camp–gate					
135	?Theodosius I	Thessalonica //(TE)[S]	383–88	see *LRBC* 1859	5408/3150	
136	?	Thessalonica //TE(.)	383–88	see *LRBC* 1858–60	5364/3136b	
	AE 4: **?VICTORIA AVG(GG)**; Two Victories stg.					
137	?	?	383–88	see *LRBC* 782 and 1867	1196/538	
138	?	?	383–88	see *LRBC* 782 and 1867	3156/2070	
	AE 4: **VICTORIA AVGG(G)**, Victory adv. l. with wreath and palm					
139	Honorius	Western mint	393–95	Type as *LRBC* 162 and 173	1759/1004	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
140		Western mint	393–95	Type as *LRBC* 162 and 173	1555/818	
	AE4: **?VICTORIA AVGG(G)**, Victory adv. l. with wreath and palm					
141	?	?Western mint	383–85			
142	?	?Western mint	383–85			
	AE 4: **SALVS REI PVBLICAE**; Victory advancing l, hdg. trophy and dragging captive. To l., there is normally a barred rho (which is not always visible on poorly preserved coins), although it did not occur on some issues (see *LRBC,* 109, SALVS REI PVBLICAE types 1 and 2). Dated 388–402: the majority of the coins fall into the period 388–395, but Aquileia and Rome continued to issue the type until 402. I only provide dates when they can be narrowed down with confidence.					
143		Aquileia //AQS	388–402	see *LRBC* 1105ff and *RIC* X, 1237–8	1422/762	
144	?Arcadius	?Aquileia //(AQ?)S	?394–402	see *LRBC* 1110/12 and *RIC* X, 1237	1537/1007	
145	?Arcadius	?Aquileia	388–402	see *LRBC* 1107ff and *RIC* X, 1237	1300/824	
146	?Theodosius I	Constantinople ?//CONS	388–95	see *LRBC* 2184/92	1300/973	
147	Arcadius	Constantinople //CON[SA]	?393–95	*LRBC* 2193var	1196/532	This coin apparently has no obverse legend break and the bust is rosette–diademed.
148	?Honorius	Constantinople //.ONS	393–95	see *LRBC* 2194	5199/2681h	
149	Arcadius or Honorius	Constantinople //CONSA	393–95	see *LRBC* 2893–4	2341/543	
150	Arcadius	?Constantinople //(CON?)	?388–92	see *LRBC* 2185	1524/872	
151	Theodosius I	Nicomedia + in O -//SM[N.]	388–92	*LRBC* 2419	1964/2383	
152	Arcadius	Nicomedia //(SMN[ ])?	388–92	see *LRBC* 2421/29	5342/3126	
153	?Arcadius	Nicomedia //SMN(Γ?)	388–92	*LRBC* 2405ff	5341/3121	
154	?Valentinian II	?Nicomedia //dot S[SMNA?]	388–92	see *LRBC* 1841/46	1545/947	
155	Theodosius I	Nicomedia //SMN(A?)	393–95	*LRBC* 2428	5302/3035	Slightly blundered reverse legend, but probably official
156	?	?Cyzicus //[S]M(KA?)	388–95	see *LRBC* 2568–70 and 2577	3156/2074	
157	Valentinian I	?	388–92		1611/876	
158	Valentinian I	?	388–92		2296/	
159	?Valentinian I	?	?388–92		5074/2537	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
160	?Valentinian I	?	?388–92		1300/958	
161	Theodosius I	?Nicomedia, Antioch or Alexandria + – //?	388–92		4018/2454	
162	Theodosius I	?	388–95		5199/2681f	
163	Theodosius I	?	388–95		3075/2094	
163a	Theodosius I	?	388–95		5640/3301d	
164	?Theodosius I	?	388–95		1300/979	
165	Arcadius	?	388–92		1577/865	
166	Arcadius	?	388–92		1876/1075	
167	Arcadius	?	388–92		1300/548	
168	Arcadius	?	388–95		5327/3116	
169	Arcadius	?	388–95		5327/3117	
170	?Arcadius	?	388–402		3156/2063	
170a	Honorius	?	388–402		5640/3301b	
171	?Honorius	?	388–402		3325/2173	
172	Theodosius I or Honorius	?	388–402		3257/2116	
173	Arcadius or Honorius	?	?388–93		1196/470	
174	?Arcadius or Honorius	?	?388–93		1300/991	
175–207	?	?	388–402		5199/2681k; 4056/2531; 1056/2622b; 1114/943a; 1194/533; 1223/518; 1274/573; 1274/598;1300/449i; 1300/460a; 1300/460k; 1300/460l; ?1300/461t; 1300/465; 1300/843; 1300/859; 1300/886; 1300/961; 1300/970; 1300/993; 1490/775; Area M/1017; 2280/506; 3136/2084; 3347/2152; 3361/2170; 4100/2554; 5199/1281e; 5199/1281g; 5199/2861i; 5199/1281j; 5302/3024; 5343/3122	
	AE 4: **?SALVS REI PVBLICAE**; Victory advancing l, hdg. trophy and dragging captive.					
208	Theodosius I	?	388–95		1524/770	
209	?Theodosius I	?	?388–95		5364/3151a	
210	?Theodosius I	?	?388–95		4018/2426b	
211–25	?	?	?388–402		1300/478; 1300/725; 3134/2651; 4018/2444; 4056/2604; 5343/3133a; Basilica/SF1/2; ?1300/461f; ?1300/461hh; 1536/787; 2159/2044; 3340/2142; 1300/968; 1300/460ff; 4056/2606	
	AE 4: **VICTORIA AVGG(G) or SALVS REI PVBLICAE**: Uncertain Victory type					
226	?	?			1300/978	
	AE 4: **?VICTORIA AVGG or SALVS REI PVBLICAE**: Uncertain Victory type					
227	?	?			5343/3140a	
228	?	?			2294/	
229	?	?			1300/898	
230	?	?			1300/944e	
	AE 3 or 4: **Valentinianic or Theodosian**, 364–402: Victory type					

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
231	?	?			4090/2991	
	AE 3: **VIRTVS EXERCITI**; Victory crowning emperor (Type as *RIC* X, 56)					
232	Arcadius or Honorius	?	395–401		5567/3229	
	AE 4: **SALVS REI PVBLICAE**; Victory seated r., inscribing shield with chi–rho (Type as *RIC* X, 101ff)					
233	Eudoxia	?	401–03		5403/3259a	
	AE 4: **SALVS REI PVBLICAE**; Victory seated r., inscribing shield with chi–rho. (Type as *LRBC* 1844 and *RIC* X, 101ff)					
234	Aelia Flacilla or Eudoxia	?Nicomedia //(SMN)?	383–92 or 401–03	see *LRBC* 3890 and 2213; *RIC* X, 102	5199/2681c	
	AE 4: **CONCORDIA AVGGG**; cross (Type as *RIC* X, 123 ff)					
235	Arcadius	?	404–06		5199/2681q	
236	?	?	404–06		1300/944a	
	AE 4: **CONCORDIA AVG or AVGGG**; cross (Types as *RIC* X, 106 ff and 123 ff)					
237	?	Constantinople //CONS.	404–06	*RIC* X, 106ff	1300/841	
238	?	?Constantinople //?CO.	404–06	see *RIC* X, 114ff and 127–8	1114/820	
239–43	?	?	404–06		1114/660; 1152/119; 1300/449h; 5199/2681x; 5362/3203	
	AE 3: **VRBS ROMA FELIX**; Roma stg., hdg. Victoriola and trophy (types A and B) (Types as *RIC* X, 1271 ff)					
244	?	Rome, Type B (OF) (?)//?	404–08	see *RIC* X, 1277–83	4018/2435	
245	?	Rome, Type uncertain OF P//?	404–08		?1300/4671g	
	?VRBS ROMA FELIX; Roma stg., hdg. Victoriola and trophy (types A and B) (Types as *RIC* X, 1271 ff)					
246	?	Rome, Type uncertain	404–08		2096/1193	
	AE 3: **GLORIA ROMANORVM**; Three emperors stg.					
247	Theodosius II	?	404–08		3048/2079	
248	Arcadius or Honorius	?	404–08		1300/460o	
249	Arcadius or Honorius	?	404–08		1300/461h	
250	Arcadius or Honorius	?	404–08		5297/3165	
251	?	?	404–08		5305/3054	
	AE 3: **GLORIA ROMANORVM**; two emperors standing with shields and spears (Type as *RIC* X, 395 ff)					

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
252	?	?Constantinople //(CON..)?	408–23	see *RIC* X, 399/400	3156/2075	
253–6a	?	?	408–23		1490/1071; 2096/3125; 4018/2469; 5305/3070; 1833/–	
	AE 3: **GLORIA ROMANORVM**; two emperors standing with ?shields and spears (Type as *RIC* X, 395 ff)					
257	?	?	408–23		unstrat/2129a	
	AE 3: **GLORIA ROMANORVM**; two emperors standing with globe (Type as *RIC* X, 407 ff)					
258	?	?	408–23		5408/3149	
	AE 3: **GLORIA ROMANORVM**, three or two emperors (type unclear)					
259	?	?	408–23		4018/2436	
260	?	?	408–23		1300/455f	
	AE 3: **?GLORIA ROMANORVM**, three or two emperors (type unclear)					
261	?	?	406–23		5074/2490a	
	AE 3: **VIRTVS EXERCITI**, Victory crowning emperor, 395–401, or **GLORIA ROMANORVM**, two emperors, 408–23					
262	?	?			wall matrix/831	
	AE 4: **Theodosian era**: *c.* 379–early 5th century: unclear reverse					
263	?	?			?1300/461a	
264	?	?			5305/3015	
265	?	?			5409/3166c	
	AE 2 or 3: **?Theodosian**, *c.* 379–early 5th century: uncertain type					
266	?	?			5301/3018	
267	?	?			2292/	
	AE 4: **Early 5th–century Victory types** Nos 268–299 are Victory types which were probably issued between 410 and 435. They were struck for Honorius, Theodosius II, Johannes and Valentinian III and are struck at Rome. An attempt has been made to categorise these poorly preserved pieces, but it is not possible to be certain about precise identifications					
	AE 4: **VICTORIA AVGG**; Victory adv. l., hdg. wreath					
268	Honorius	Rome	?410–23	see *RIC* X, 1357	1227/521	P//[ ]
269	Honorius	Rome ? –//?	?410–23	see *RIC* X, 1357	1300/460u	
	AE 4: **VICTORIA AVGG**; unclear Victory type					
270	?	Rome	410–35		5199/2681m	
271	?	Rome	410–35		5074/2490b	
272	?	Rome P/dot –//?	410–35		1300/460q	
273	?	Rome (P) –//?	410–35		?1300/461w	
274	?	Rome S –//?	410–35		1300/487	
274a		Rome S –//?	410–35		1490/1067	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	AE 4: **SALVS REI PVBLICE** (or **VICTORIA AVGG**); Victory adv. l., with trophy and captive 423–5 (see *RIC* X, 1914 ff) or 425–35 (see *RIC* X, 2106 ff; 2133; 2137–9) These coins were struck in the names of Johannes II, Theodosius II and Valentinian III					
274b	?Theodosius II	Rome Barred–Rho//RMP		.f. *RIC* X, 1922	5640/3301a	
275	?	Rome //?RPM			1490/740	obverse brockage
276	?	Rome E –//?			?1300/4611	
277	?	Rome P or barred-rho -//?			1223/513	
278	?	Rome			3134/2673a	
279–82	?	Rome			1490/728; 1300/817; 5199/1681l; 5362/3211	
	AE 4: **VICTORIA AVGG** (or **SALVS REI PVBLICE**); Victory adv. l. with wreath and palm types which fall between 410 and 435, struck for Honorius, Johannes, Theodosius II and Valentinian III (for types, see *RIC* 1357–8; 1909–11; 2107–9; 2118–22)					
283	?	Rome P -//?			5074/2545	
284	?	Rome ?P -//?			3105/3565	
285	?	Rome dot -//?			4018/2426a	
286	?	Rome ?barred-rho -//?			1963/2408a	
287	?	Rome - -//?			1422/2106	
288	?	Rome			?1300/461x	
289	?	Rome			unstrat/450	
	AE 4: **?VICTORIA AVGG** (or **SALVS REI PVBLICE**); Victory adv. l. with wreath and palm types which fall between 410 and 435, struck for Honorius, Johannes, Theodosius II and Valentinian III (for types, see *RIC* 1357–8; 1909–11; 2107–9; 2118–22)					
290	?	Rome l -//?			Room 21/-	
291–4	?	Rome			5140/2636; 5302/3023; 5392/703c; 5305/3258	
	AE 4: **Unclear Victory types of the 410–435 period**					
295–9a	?	Rome			3134/2673b; 3257/2122; 5571/3254a; 5635/3287; 1227/511; 3134/2673a	
	AE 4: **?VICTO AVG or VAGT VICTOR**; emperor stg. with captive and standard					
300	?Valentinian III	?Rome		see *RIC* X, 2142–3	3477/2553	
	AE 4: **Unclear captive type for Valentinian III or later 5th century**					
301	?	?		see *RIC* X, 2142–3	5361/3160	
	AE 4: **CONCORDIA AVG**; Victory stg. facing, hdg. two wreaths					

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
302	Theodosius II	Heraclea or Nicomedia //?(SMN or H)	425–35	see *RIC* X 431–2 and 436	5362/3204	
303	Theodosius II	?	425–35		4056/2065b	
	AE 4: **?CONCORDIA AVG**; Victory stg. facing, hdg. two wreaths					
304	?Theodosius II					
	AE 4: **CONCORDIA AVG**; Victory stg. facing, hdg. two wreaths or **VICTORIA AVGG**, Victory adv. l. with wreath and palm 425–35 or 410–35					
305	?Theodosius II	?			cleaning Room 25/2295	
306	?Theodosius II	?			5199/2681n	
	AE 4: **Uncertain Victory types** The following coins probably all fall within the period 383 to 435, although it is possible that some are later.					
	AE 4: **Victory adv. l. with trophy and captive; barred–rho to left**					
307	Crude bust	?			1300/484	
	AE 4: **?Victory adv. l. with trophy and captive**					
308	?	?			1300/967	
	AE 4: **Victory adv l. with wreath**					
309	?	?			2280/503	
310	Barbarous	?			1152/114	
	AE 4: **Unclear Victory type**				1223/516	
311	?					
	5th–century cross types There are a variety of cross types struck in the 5th century: **CONCORDIA AVG / AVGGG** (see nos 235–43 above) AD 404–06 **Cross in Wreath** AD 425–35 **SALVS REI PVBLICE** AD 425–35					
	AE 4: **Cross in wreath** Most of these coins were struck in the name of Theodosius II, rather than Valentinian III, but the obverse legends are rarely legible (for types, see *RIC* X, 440ff; 2144–5)					
312–17	?	?	425–35		1273/957; 1759/323; 5045/2325; 5305/3027; 1114/773	
	AE 4: **Cross in spiky wreath** The following coins are possibly of the style of Rome, issued by Valentinian III					
318	?Valentinian III	?Rome	425–35	see *RIC* X, 2144–5	?/3137	
319	?Valentinian III	?Rome	425–35	see *RIC* X, 2144–5 and *BMCV* 36	5553/3234	This coin is similar to a Justinianic cross issue of Rome, but does not have stars in the angle (see Hahn 231)
	AE 4: **?Cross in wreath**					
320	?	Cyzicus //SMKA	425–35	see *RIC* X, 449ff	1112/127	
321–7	?	?	425–35		1223/517; 1371/?; 1490/451; ?/454; 4018/2438; 1196/483; 1740/920	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
328	Poss barbarous	?	425–35		3184/2108	
	AE 4: **Small cross of crude style, possibly of SALVS REI PVBLICE issue**					
329	?Valentinian III	?Rome		see *RIC* X, 2110ff	1439/627a	
	AE 4: **Cross in wreath or legend** 404–06 or 425–35					
330	?	?			4029/2437	Note the cross type for Justinian I, Hahn 231
331	Crude style	?			5108/2441	
	AE 4: **Cross or Barred–Rho in wreath** (for barred–rho type, see *RIC* X, 2146)					
332	?	?			5071/2556b	
	AE 4: **CONCORDIA AVG/GG** or **SALVS REI PVBLICE**, cross; 404–06 or 425–35					
333	?	?			1300/459	
	AE 4: **VT / XXX / (V)** (maybe a dot between V and T)					
334	?Theodosius II	?	?435	see *RIC X*, 457–9	4018/2439	
	AE 4: **Monogram of Theodosius II**					
335	Theodosius II	Constantinople	445–50	see *RIC* X 462ff	5343/3125	
	AE 4: **Monogram of Marcian** in wreath (Types as *RIC* X, 535ff)					
336	Marcian	?	450–7		?1300/461i	Monogram 3 or 4
337–41	Marcian	?	450–7		1114/943b; 1524/871; 1300/456c; 1196/526; 1537/1011	
	AE 4: **?Monogram of Marcian** in wreath					
342–50	?Marcian	?	?450–7		1415/690b; 5305/3052; 5331/3076; 5403/3424; 5403/3243; 1490/1065; 5071/2556a; 3048/2097; 5071/2556c	
	AE 4: **Lion l, crouching or standing**; above unclear (Types as *RIC* X, 666ff and 673ff)					
351	Leo I	?	457–74		2000/1191	
352	Leo I	?	457–74		2340/545	
	AE 4: **Monogram 1 of Leo I** in wreath					
353	Leo I	Constantinople //CN	457–74	*RIC* X, 683–4var	3134/2493	*RIC* only records mm. as CON
354	Leo I	?	457–74		?1300/461j	
355	Leo I	?	457–74		1740/1060	
	AE 4: **?Monogram of Leo I** in wreath (as opposed to monogram of Zeno, see below)					
356	?Leo I	?	457–74		1502/719	
357	?Leo I	?	457–74		5630/3297	
	AE 4: **?Barbarous monogram of Leo I**					
358	?Leo I	?	457–74		1300/960	
	AE 4: **Emperor stg. facing, head r., hdg captive in l., cross in r.** (Type as *RIC* X, 698ff)					
359	Leo I	?	457–74		5369/3169a	
359a	?	?	457–74		1829/3326	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	AE 4: **b – E; Empress Verina stg. hdg. cross and sceptre** (Type as *RIC* X, 713ff)					
360–64	Leo I	?	457–74		1300/467; 1490/732; 1494/709; unstrat/453; 5074/2546	
	AE 4: **?b – E; Empress Verina stg. hdg. cross and sceptre**					
365	?Leo I	?			1300/710	
366	?Leo I	?			1300/980	
367	?Leo I	?			5403/3246	
	AE 4: **??b – E; Empress Verina stg. hdg. cross and sceptre**					
368	?	?			1300/455b	poss b visible in l. field
	AE 4: **Verina type or monogram type of Leo I or Zeno** (large E visible on r.)					
369	?	?	?457–91		4001/2455	
	AE 4: **?Monogram of Libius Severus** (Types as *RIC* X, 2715–7)					
370	?Libius Severus	?Rome	?461–65		5579/3263	
	AE 4: **?Monogram of Anthemius** (Type as *RIC* X, 2857)					
371	?Anthemius	?Rome	467–72		4033/2417	
	AE 4: **?Emperor stg. facing, hdg. standard and cross on globe**					
372	?Zeno	?Cyzicus	474–91	see *RIC* X, 953	4029/2423	
	AE 4: **?Monogram of Zeno** (Types as *RIC* X, 958ff)					
373	?Zeno	?	474–91		5306/3012	
374	?Zeno	?	474–91		5331/3079	
	AE 4: **Monogram of Leo I or Zeno**					
375	Leo I or Zeno	?	457–91		1439/602	
	AE 4: **?Monogram of Leo I or Zeno**					
376–9	?Leo I or Zeno	?	457–91		1478/1012; 1577/875; 5074/2468; 1490/749	
	AE 4: **?Emperor type for Leo I or Zeno** (Types as *RIC* X, 698ff and 953ff)					
380	?Leo I or Zeno	?	457–91		1829/3231	
	AE 4: **?Unclear figure type for Leo I or Zeno**					
381	?Leo I or Zeno AE 4: **Monogram of Anastasius** (Type as Hahn 40)	?			1515/756	
382	Anastasius	?	491–98		5331/3075	Probably continued beyond 498
383	Anastasius	?	491–98		1779/2422	
384	Anastasius	?	491–98		1584/885	
385	?Barbarous	?	491–98		1114/697	
	AE 4: **?Monogram of Anastasius** (Type as Hahn 40)					
386	?Anastasius	?			?1300/461cc	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
387	?Anastasius	?			5403/325	Note that Justin I issued a similar piece later; see Hahn N67

Post–reform Byzantine coins

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	Justin I, 518–27					
388	AE Follis	?Constantinople	518–27	see Sear 62	5045/2329	
389	AE Nummus	?Antioch	518–27	see Hahn NN67	cleaning Room 21	This coin was once attributed to Justin I
	Anastasius to Justinian					
390	AE ½ Follis	?	before 538/9		3105/2464	
	Justinian I, 527–65					
391	AE Follis	Constantinople	538/9	Grierson 80	3105/2041	
392	AE Follis	Constantinople	?541/2	see Sear 165	5364/3136a	
393	AE Follis	Constantinople	?558/9	see Grierson 80–82	3304/2499	
394	AE Follis	?	?559/60	Grierson 80	1112/554	
395	AE ½ Follis	Carthage	538/9	Sear 265	5071/2400	
396	AE ½ Follis	Antioch	548/9	*DOC* 1, 70; Sear 230	2340/547	
397	AE ½ Follis	Thessalonica	562/3	Sear 174	5069/2394	
398	AE Nummus	Carthage	533/4 (Large A)	Hahn 193; Sear 281	1415/690a	
399	AE Nummus	Carthage	533/4 (Large A)	Hahn 193; Sear 281	1676/939	
400	AE Nummus	Carthage	533/4 (Large A)	Hahn 193; Sear 281	1676/948	
401	AE Nummus	Carthage	533/4 (Large A)	Hahn 193; Sear 281	5100/2557	
402	AE Nummus	Carthage	533/4 (Large A)	Hahn 193; Sear 281	1439/601	
402a	AE Nummus	Carthage	533/4 (Large A)	Hahn 193; Sear 281	5572/3303d	
403	AE Nummus	?Carthage	?533/4 (?Large A)		unstrat/1056	
404	AE Nummus	?Carthage	?533/4 (Large A or CA)	see Hahn 193 and *MEC* 28–9	1114/861b	
405	AE Nummus	Carthage	547 (Chi–Rho)	Hahn 206a; Sear 283	1300/460e	
406	AE Nummus	Carthage	547 (Chi–Rho)	Hahn 206a; Sear 283	1828/3257	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
406a	AE Nummus	Carthage	547 (Chi-Rho)	Hahn 206a; Sear 283	5572/3303b	
407	AE Nummus	?Carthage	548 (?as above)	Hahn 206a; Sear 283	1300/460ii	
408	AE Nummus	?	?Chi-Rho (or star)	Hahn 206a; Hahn 211; Sear 283	unstrat/450a	
	Justin II, 565–78					
409	AE Follis	Constantinople	574/5	Sear 360; Grierson 83	3105/2051	
410	AE ½ Follis	?Thessalonica	571/2		5539/3198	
	Justin II (or Tiberius II), 565–78 (578–82)					
411	AE ½ Follis	?Thessalonica	570/1 (or 578/9)	see Sear 366 and 439	1114/559	
	?Tiberius II or Maurice Tiberius, 578–602					
412	AE Follis	?	578–602		5024/2419	
	Maurice Tiberius, 582–602					
413	AE Follis	Nicomedia	589/90	Sear 512	5361/3220	
414	AE ½ Follis	?Thessalonica	?583/4	see Sear 509	1436/589	
415	AE ½ Follis	Constantinople	593/4	Grierson 94; Sear 497	5509/3199	
416	AE Decanummium	Rome	582–602	see Grierson 202; Sear 600	1439/605	
417	AE Nummus	Carthage			1415/671b	Since the writing of this catalogue in 2007, this coin has been reassigned to the reign of Justinian I, with suggested dates of *c.* AD 533–565 – see Bijovsky 2012, 320ff. The original catalogue number is retained here to ensure consistency with the coins as stored at Butrint.

Vandalic Coins

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	AE 4: **Victory l., of ?Vandalic style** (official or barbarous). See *MEC* 19–20 and 31–2; *MIB* III, table XIII, 16					
418	?Thrasamund	?Carthage	496–523		?/450h	
419	?Thrasamund	?Carthage	496–523		1494/699	
	AE 4: **?Victory l., of ?Vandalic style** (official or barbarous). See *MEC* 19–20 and 31–2; *MIB* III, table XIII, 16					
420	??Thrasamund	??Carthage			1523/800	
421	??	??			1676/953	
	AE 4: **3 linear features** (just possibly similar to above)					

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
422	?	?			4045/2327	

Ostrogothic Coins

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	AE 4: D N RE / B See *MEC* I, 164–5					
422a	Baduila	Pavia/Ticinum	541–52		5572/3303a	
422b	Baduila	Pavia/Ticinum	541–52		Room 21 cleaning	

Uncertain 5th/6th century

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	AE 4: **Cross in large dotted border/crude wreath**					
423	Obv. ?bust	?		CFCP 361; Sabatier pl. XVII, 32	?/452	This could be a barbarous copy of a Theodosian issue of 425–35, see nos 312–7 above, but it could be a poorly struck 6th-century issue of Justinian I – see Hahn 231 or of Hilderic – see MEC 24–35. The reference is to a coin catalogued by the author from Palestine; the Sabatier reference is to a coin attributed to Justinian I.
	AE 4: **Unclear cross type**					
424	?					1300/1042
	AE 4: **?Monogram or Large A in border**					
425	?	?			1493/685	
	AE 4: cast coins 5th/(6th) century					
426	?	?			5364/3136g	These coins were first noted in Egypt by J. G. Milne (Milne 1926) and have been tentatively dated to the period *c.* 450–75 (Butcher 2004, 101). Cast coins, often with sprues
427–447a	Possibly cast coins of the same type				1415/671a; 1114/558; 1151/85; 1196/475; 1415/67a; 1422/766; 1439/608; 1452–66/641; 1515/748; 1515/757; 1523/867; 2053/1161; 3098/2036; 3109/2044; 3325/2180; 4081/2496; 5014/3030; 5071/2456; 5071/2592; 5074/2406; 5145/3290; 11606/2304	
	Lead Tessera					
448	(9/10mm; 0.54g) No type				5199/2681zz	

Uncertain coins

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	Miscellaneous uncertain coins, 4th century or earlier					
449–53					2323/510; 3105/2043; 1135/1872; 3064/2029; 5199/2681v	
	4th-century coins					
	AE 3: **?Constantinian to Valentinianic**: unclear type					
454	?	?			4057/2639	
	AE 3					
455	?	?	?*c.* 350–410		?/450a	
	AE 3 or 4: **?4th-century coins**: unclear types					
456–70					1196/480; 1196/482; 1300/460h; 1422/2109; 1490/1063; 2077/1179; 3271/2131; 2341/541a; 3339/2163; 5199/2681u; 5199/2681z; 5208/2690b; 4302/3009; 5305/3022; 5359/3277b	
	4th- to 5th-century coins					
	AE 4 **Possible Victory types**					
471–85					1740/999; 4018/2432; 1740/1000; 5305/3223; 1114/529; 1300/476; 1300/729; 1759/929; 2313/507; 4056/2608; 4133/2626; 1300/971; 5074/2596; 5579/3248; 3477/2549; 1606/2305d;	
	AE 4: **Uncertain coins with wreaths or possible wreaths** that might have been Vota or cross issues of the 4th or earlier 5th century					
486–93					5369/3169b; 1300/840; 3048/2101; 4100/2530b; 5305/3056; 1300/481; 3386/2318	
	AE 3 or 4: **?Late 4th- to early 5th-century**: unclear types. Most of these coins probably fall between 379 and 435					
494–581					5361/3221; 5409/3166i; 1114/861a; 1152/118; 1300/456d; ?1300/461s; ?1300/461ff; 1300/965; 1300/974; 1300/1026; 1422/643; 1422/677; 1876/1080; 3115/2054; 3257/2120; 3339/2140; 5133/2680a; 5305/3044; 5362/3100; u/s; 1300/449b; 1300/449c; 1300/449j; 1300/460f; 1300/460i; 1300/460ee; 1300/450kk; ?1300/461b; ?1300/461e; ?1300/461v; 1300/860; 1300/964; 1300/969; 1577/864b; 1759/936; 1829/2800;1954/1126; 5302/2848; 5351/3066; 5364/3151b; 4364/3151c; 5364/3151d; 5364/3151e; 5364/3151f; 5364/3151j; 5364/3151k; 5408/3145b; 5408/3148; 5409/3166b; 5409/3166e; 5409/3166k; 5409/3166r; 5423/3170; 5599/3269; ?450a; 1300/456f; ?1300/461gg; 1490/747; 5074/2404;	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
					5140/2630; 5153/2488; 5362/3202; ?/450i; 1300/455g;?1300/461u; 1300/994; 1422/675; 1438/743; 1759/933; 1759/1003; 3339/2144; 3430/2188; 4056/2601; 5074/2540b;5280/2809; 5302/2841; 5302/2843; 5327/3036; 5327/3110; 5343/3063; 5358/3067; 5359/3280; 5362/3175;5364/3113; 5403/3247; 5403/3247; 5403/3259b; 5409/3166d; 1300/460r	
	AE 3 or 4: **4th- or 5th-century coins**: unclear types					
582–671					1964/2420b; 4051/2610; 4081/1498; 5019/2322; 5074/2542; 5097/2430; 5133/2680b; 5199/2681p; 5199/2681r; 5199/2681w; 5199/2681aa; 5199/2681bb; 5199/2681cc; 5199/2681dd; 5199/2681ee; 5199/2681ff; 5199/2681gg; 5199/2681hh; 5199/2681kk; 5199/2681kk; 5199/2681ll; 5199/2681mm; 5199/2681rr; 5199/2681tt; 5199/2681uu; 5199/2681ww; 5305/3064; ?/2150; 5173/2558; 5199/2681t; 5199/2681y; 5199/2681jj; 1606/2309; 4018/2443; 4100/2550; 5133/2680c; 1009/473c; 1114/585; 1196/527; 1300/449k; 1300/449m; 1300/460y; 1300/460aa; 1300/460jj; 1300/460oo; 1300/460pp; 1300/460rr; 1300/460ss; 1300/460vv; 1300/460ww; 1300/460yy; ?1300/461m; 1300/722; 1300/944f; 1422/2104; 1490/751; 1490/763; 1499/698; 1515/744; 1606/2305b; 1963/2408b; 2077/2013; 3076/2077; 3184/2113; 3193/2115; 3257/2123; 3257/2135; 3340/2146; 3340/2149; 3398/2185; 4001/2452; 4018/2433; 4038/2621; 4056/2599; 4157/2648; 5074/2490d; 5199/2681xx; 5199/2681yy;5305/3025; 5305/3068; 5331/3074; 5343/3140b; 5342/3140c; 5403/3259i; 5403/3259n; 5408/3146; 5409/3166h; 5409/3166p; 5509/3200; 5571/3254d	
	5th- to 6th-century coins					
	AE 4: **?Unclear N-shaped monograms**					
672–78	?Leo to Justin I	?	*c.* 457–527		1114/943c; 5403/3240; 5403/3238; 5403/3259j; 5440/3171;1300/908; 1523/811; 4094/2692	
	AE 4: **Unclear monograms**					
680–85	?	?	*c.* 445–527		?1300/461k; 1300/966; 1490/1069; 1537/852; 4094/2655; 5074/2541	
	AE 4: **Possible monogram pieces**					
686–736a	?	?	Prob. 445–527		unstrat/450g; ?1300/461o; ?1300/461p;?1300/461r; ?1300/461z; 1300/827; 1300/1044; 1415/642; 1415/668a; 1415/668d; 1490/1064; 3477/2568; 5071/1593; 5074/2407;	686 might have a mintmark of Rome

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
					5403/3259l; 1300/972; 1490/1023; 1490/1090; 1523/844; 1531/772; 1578/866; 4056/2602; 5074/2489; 5331/2059; 5369/3169f; 5567/703a; 1300/460uu; 4094/2694a; 5579/3251; 1290/614; 1300/460x; ?1300/461d; 1300/975; 1523/767; 1847/1068; 3477/2547; 4105/2557; 5004/2428; 5014/2810; 5269/2806; 5331/3080; 5331/3082; 5362/3207; 5369/3169c; 5402/3226; 5403/3239; 5403/3244; 5403/3261; 5494/3195; 5579/3250; 5305/2840; 1490/1073	
	AE 4: **?Wreath or thick border types** with either possible monogram, cross, letter or even small vota (sometimes no wreath)					
737–767a			*c.* 425–547 or later		1523/809; 1536/804; 1699/955; 5045/2331; 5019/2323a; 5331/3097; 5364/3151g; 1009/473d; 1037/1009; 1151/84; 1300/723; 1300/823; 1300/903; 1415/672; 1439/606; 1439/612; 1439/627c; 3108/2058; 5045/2393; 5403/3255; 5579/3249; 5579/3266; 5579/3274; 1490/1082; 1300/822; 4001/2462; 5074/2490c; 1415/583; ?/2129b; 5045/2326	
	AE 4: **Probable 5th-century coins**					
768–803b					5101/2431; 1136/70; 1300/449d; 1300/449e; 1300/455a; 1300/460d; 1300/460s; 1300/460t; 1300/460hh; ?1300/461ee; 1300/906; 1422/457; 1422/760; 1759/2412; 1829/3227; 1829/2090; 1829/2093; 1964/2420a; 4001/2564; 4056/2065a; 4056/2638; 5057/2395; 5128/2458; 5199/2681l; 5199/2681oo; 5199/2681pp; 5199/ 2681qq; 5199/ 2681vv; 5305/ 3051; 5331/3077; 5362/3205; 5402/3132; 5409/3166f; 5552/3225; 5622/3312; ?/2159; 1490/1070; 5640/3301e	
	AE 4: **5th- to 6th-century coins**					
804–1065c					1577/864a; 1606/2305a; 1606/1305c; 1606/2305e; 1606/2316; 3075/2072; 4001/2335; 5005/2474; 5045/2328; 5264/2792; 5282/2815; 5302/2835; 5403/3245; 5403/3259h; 1606/2320a; 4081/2494; 5074/2538; 5108/2449; 5199/2681nn; 5199/2681ss; ?/450d; 4094/2687; 4097/2532; 5045/2334; 5297/3173; 1009/473b; 1112/98; 1114/564;1114/566; 1114/567; 1114/758; 1139/474; 1139/477; 1152/512; 1196/519; 1196/468; 1273/956; 1274/622; 1300/449f; 1300/449g; ?450j; 1300/355c; 1300/455d; 1300/455e; 1300/455h; 1300/455i; 1300/455j; 1300/456a;1300/456b; 1300/456e; 1300/460b; 1300/460c; 1300/460g; 1300/460j; 1300/460m; 1300/460w; 1300/460bb;	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
					1300/460dd;1300/460gg; 1300/460ll; 1300/460mm; 1300/460nn; 1300/460qq; 1300/460tt; ?1300/461n; ?1300/461q; ?1300/461y; ?1300/461bb; ?1300/461dd; ?1300/461jj; 1300/471; 1300/721; 1300/724; 1300/727; 1300/733; 1300/737;1300/795; 1300/821; 1300/826; 1300/828; 1300/837; 1300/907; 1300/944d; 1300/959; 1300/976; 1300/990; 1300/992; 1300/1027; 1300/; 1321/1124; 1322/621; 1392/631; 1392/633; 1415/610; 1415/649a; 1415/649b; 1415/668c; 1415/668e; 1415/687; 1422/623; 1422/640; 1422/704; 1422/759; 1422/761; 1422/763; 1422/764; 1422/774;1428/578; 1436/588; 1436/590; 1436/591; 1436/593; 1436/594; 1436/595; 1439/599; 1439/604; 1439/607; 1439/611a;1439/611b; 1439/613; 1439/627b; 1439/627d; 1439/627e; 1439/627f; 1439/627g; 1452/669; 1487/1024; 1490/714; 1490/750; 1490/782; 1490/1021; 1490/1062; 1490/1072; 1490/1089; 1494/703; 1494/707; 1515/741; 1515/768; 1523/845; 1524/874; 1536/451; 1536/790; 1536/982; 1537/854; 1572/850; 1606/2305g; 1676/941; 1740/922; 1759/1005; 1759/1006; 1829/3236; 1849/1077; 1886/1100; 2077/1167; 2077/2012; 2096/1194; 2341/541b; 3115/2050; 3115/2055; 3115/2057; 3156/2060; 3159/2062; 3159/2065; 3159/2066; 3227/2199; 3240/2153; 3257/2136a; 3257/2136b; 3257/2137;3325/2168; 3339/2165; 3477/2548; 4018/2425; 4018/2442; 4019/2390; 4038/2654; 4039/2613; 4094/2695a; 4094/2695b; 5019/2323b; 5045/2391; 5071/2453; 5079/2804; 5126/2472; 5264/2791; 5267/2814; 5268/2799; 5270/2833; 5297/3163; 5297/3172; 5302/2847; 5302/5029; 5305/3038; 5305/3057; 5305/3089; 5305/3106; 5327/3046; 5331/3060; 5331/3098; 5331/3099; 5343/3124; 5351/3071; 5362/3139; 5362/3206; 5364/3114; 5364/3136c; 5364/3136d; 5364/3136e; 5364/3136f; 5364/3136h; 5364/3136i; 5364/3136j; 5364/3136k; 3136l; 5364/ 3151h; 5364/3151i; 5369/3169d; 5369/3169e; 5376/3103; 5381/3141; 5390/3189; 5391/3078; 5402/3218; 5403/3235; 5403/3241; 5403/3259d; 5403/3259e; 5403/3259f; 5403/3259g; 5403/3259k; 5403/3259m; 5409/3166g; 5409/3166l; 5409/3166m; 5409/3166n; 5409/3166o; 5426/3228; 5426/3233; 5508/3194;	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
					5509/3198; 5509/3217; 5511/703b 5531/3083; 5564/3219; 5566/3278; 5571/3254c; 5579/3253; 5579/3260; 5579/3262; 5579/3265; 5579/3267;5579/3268; 5579/3271; 5579/3272; 5579/3273; 5613/3282; 5613/3283; unstrat/550; Room 19/2807; 5362/3208; 3416/2189; 5572/3303c; 5572/3303e	
	AE 3 or 4: **4th to 6th century or earlier**					
1066–1104					1056/2622a; 1300/962; 1422/771; 3339/2148; 4094/2694b; 5272/2688; 1300/449l; 1300/449n; ?/450f; 1300/460cc; 1300/460xx; ?1300/461aa; ?1300/461ii; ?1300/461ll; ?1300/461mm; ?1300/461nn; ?1300/461oo; ?1300/461pp; 1490/1087; 1537/1030; 1545/1014; 1606/2305f; 1606/2305h; 1606/1305l; 1759/931; ?/458; 1829/2095; 3190/2086; 3340/2141; 4001/2340; 4057/2641; 5331/3084; 5409/3166j; 5409/3166q; 5409/3166s; 5409/3166t; 5552/3224; by 5369 in set/?; 5343/3053	
	AE 22/23mm: **?1st to 6th century AD**					
1105					1279/579	Peter Guest tentatively suggested the 6th century

Catalogue References

BMCG	Gardner 1883
BMCV	Wroth 1911
CFCP	Moorhead 1983
DOC	Bellinger and Grierson 1966–73
Grierson	Grierson 1982
Hahn	Hahn 2000
LRBC	Hill, Kent and Carson 1978
MEC	Grierson and Blackburn 1986
MIB	Hahn 1973–81
RIC	*Roman Imperial Coinage* (Various authors) 1923–94
SNG von Aulock	Von Aulock 1957–68
Sabatier	Sabatier 1862
Sear	Sear 1987

Appendix 6.2. Excavated coins by context and period

T. Sam N. Moorhead

This shows all of the Triconch and Merchant’s House coins by context and period. I provide the likely dates, and Catalogue numbers, for the latest coins. Note that the total uncertain coins might not correspond entirely with catalogue entries as I have had to condense the categories. Possible hoards are included in this table; all small find numbers with a letter affix are groups of coins covered by one small find number (e.g. 1009, 473a–d). For completeness, the list also includes coins from the 1994–98 Baptistery excavations and other chance finds.

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
1000	-	1																		1				SF 62: 945–*c.* 950
1009	2	3		2			1																	SF 55: ?361–63
1009, 473a-d	2	4	1													1		2						SF 473d (Cat 745): ?5/6
1037	-	1																1						SF 1009 (Cat 746): ?5/6
4056, 2622a-b	6	2								1									1					SF 2622b (Cat 177): 388–402
1112	15	5								1			1					1				1	1	SF 509: 1287–1308
1114	15	35	2		1			1			2	1		1		2		5		10	4	1 (2)	1	SF 575: *c.* 1310
1114, 861a-b	15												1			1								SF 861b (Cat 405): 533/4 or 530–34
1114, 943a-c	15	3										2				1								SF 943b Cat 338): 450–57 SF 943c (Cat 673): prob 457–98
1135	8	1	1, or 4th																					SF 1872 (Cat 452): 4th or earlier
1136	8	1															1							SF 70 (Cat 769): ?5
1139	5	3					1											2						SF 477 (Cat 836): ?5/6
1149	-	1						1																SF 717 (Cat 77): ?364–78
1151	8	2																2						SF 84 (Cat 776): ?5/6
1152	8	5						1			1					2		1						SF 119 (Cat 242): 404–06; SF 512 (Cat 837): ?5/6
1194	6	2						1		1														SF 533 (Cat 179): 388–402
1196	10	13						1	1	3	2	1			2	1		2						SF 526 (Cat 341): 450–57

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
1223	4	4								2	1					1								SF 517 (Cat 321): ?425–35
1227	2	3						1			2													SF 511 & 521 (Cat 299 & 268): *c.* 410–35
1273	9	2										1						1						SF 957 (Cat 312): 425–35; SF 956 (Cat 840): ?5/6
1274	-	3								2								1						SF 598 (Cat 182): 388–402; SF 622 (Cat 841): ?5/6;
1279	-	1																					1st-6th	SF 579 (Cat 1105): ?1–6
1290	-	1																1						SF 614 (Cat 716): ?5/(6)
1300, 449a-n	7	14						1		1	1					5	1	3	2					SF 449h (Cat 242): ?404–06; Several: ?5/6
?, 450a-j		10							1		1		1?			2	1	3	1					SF 450c (Cat 289): *c.* 410–35; SF 450e (Cat 409): ?5/6, poss 547; others 5/6
1300, 455a-j	7	10									1					1	1	7						SF 455f (Cat 261): 406–23; several ?5/6
1300, 456a-f	7	6										1				2		3						SF 456c (Cat 340): 450–57
1300, 460a-zz	7	52						3			3		2		2	19	4	16	2				1	SF 460e & 460ii (Cats 406 & 408): 547
?1300, 461a-pp	7	35									5	4			1	11	6	1	7					SF 461cc (Cat 387): ?491–98; several: ?5/6

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
1300	7	80					1	3	3	19	3	5			1	13	4	27	1					SF 467 (Cat 361): 457–74
1300, 944a-f	7	6					1		1		1					2		1						SF 944a (Cat 237): 404–06; SF 944f (Cat 887): ?5/6
1321	2a	1																1						SF 1124 (Cat 894): ?5/6
1322	-	1																1						SF 621: ?5/6
1371	-	1									1													SF Section (Cat 322): ?425–35
1392	9	2																2						SF 631 & 633 (Cat 896–7): ?5/6
1409	12/13	1																		1				SF 555: 10th cent.
1411	12/13	2	1																	1				SF 2794: 963–9
1415	9	5																5						All: ?5/6 – see SF 642 (Cat 694)
1415, 649a-b	9	2																2						SF 649a-b (Cat 899–900): ?5/6
1415, 668a-e	9	5										1						4						SF 668a (Cat 695): ?445–527
1415, 671a-b	9	2												1				1						SF 671b (Cat 418): 597/8–601
1415, 690a-b	9	2	2									1	1											SF 690a (Cat 399): 533/4
1415	9	2																2						SF 672 (Cat 750): poss 5th cent
1422	7	20								1	1				2	4	2	9	1					SF 2106 (Cat 287): ?410–35; many ?5/6
1428	10	1																1						SF 578 (Cat 912): ?5/6
1436	10	7												1				6						SF 589 (Cat 415): ?583/4

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
1438	-	1														1								SF 743 (Cat 561): ?4th/early 5th
1439	10	10										1	1	1				7						SF 605 (Cat 417): ?582–602; SF 601 (Cat 403): 533/4
1439, 611a-b	10	2																2						Both ?5/6
1439, 627a-g	10	7									1							6						SF 627a (Cat 329): ?425–35; rest ?5/6
1450	13	1					1																	SF 622 (Cat 52): ?350s–61
1452	9	1																1						SF 669 (Cat 930): ?5/6
1452	9	1																1						SF 641 (Cat 433): ?cast, ?450–75
1468, 2073a-b	14	2																			?	?		Both Billon Trachy
1469	9	1																		1				SF 2002: 945–59
1473	13	1																			1			SF 688: *c.* 1040–1200
1487	7/8																	1						SF 1024 (Cat 931): ?5/6
1490	6	25									4	5			1	4	2	8	1					SF 732 (Cat 362): 457–74
1493	12/13	1																1						SF 685 (Cat 426):?A or monogram
1494	6	3										1						2						SF 709: 457–74
1502	10	1										1												SF 719 (Cat 357): 457–(74 or 91)
1515	6	7					1					1				1		4						SF 756 (Cat 382): ?457–91; SF 757 (Cat 436): ?Cast, ?450–75

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
1521	-	1							1															SF 830 (Cat 132): 380s
1523	10	7										1	1				2	3						SF 811 (Cat 706): ?445–527; SF 800 (Cat 421): ?496–523
1524	8	4								2		1						1						SF 871(Cat 339): 450–57
1531	8	1															1							SF 772 (Cat 707): ?445–527
1536	8	5								1							1	3						SF 804 (Cat 739): ??445–527
1537	6	5								1		2						1	1					SF 1011(Cat 342): 450–57
1545	10	3								1									1				1	SF 947 (Cat 154): 388–402
1553	14	1							1															SF 812 (Cat: 122) 380s
1555	8	1							1															SF 818 (Cat 140): 388–402
1557	12	1																						SF 819 (Cat 6): 193–211
1572	8	2						1										1						SF850 (Cat 947): ?5/6
1574	15	1	1																					SF 1574 (Cat 3): 184–5
1577, 864a-b	8	2														1		1						SF 864a (Cat 804): ?5/6
1577	8	2								1		1												SF 875 (Cat 378): ?457–74
1578	12/13	1															1							SF 866 (Cat 707): ?445–98
1584	7	1										1												SF 885 (Cat 385): 491–98
1606	9	4			1											1			2					SF 2309 (Cat 615): ?5th cent
1606, 2305a-i	9	9														1		5	3					?5/6

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
1606, 2320a-b	9	2																1					1	SF 2320a (Cat 818): ?5th cent
1611										1														SF 876 (Cat 157)
1676	9	4											2					2						SF 939 & 948 (Cat 400–1): 533/4; SF 953 (Cat 422): poss 496–523
1699	12/13	1															1							SF 955 (Cat 740): ??445–98
1740	8	5									1	1				2		1						SF 1060 (Cat 336): 457–74
1759	6	11							1	1	1					4	1	2	1					SF 323 (Cat 313): 425–35; others poss later
1767	12	1						1																SF 941 (Cat 87): 364–78
1772	10/13	1						1																SF 938 (Cat 67): 367–75
1779	10	1										1												SF 2422 (Cat 384): 491–98
1823	5	2					1	1																SF 1094 (Cat 86): 364–75
1828	9	1											1											SF 3257 (Cat 407): 547
1829	6	9						1				1				1	2	2	1		1			SF 2087: 1078–81
1847	8	1																1						SF 1068 (Cat 721): ??445–98
1849	8	2		1														1						SF 1077 (Cat 956): ?5/6
1872	2	1																					?	?
1876	7	3					1			1						1								SF 1075 (Cat 166): 388–402
1885	5/6	1						1																SF 1078 (Cat 82): 367–75
1886	9	1																1						SF 1100 (Cat 957): ?5/6

Context	**Phase**	**freq**	**Pre-300**	**296–317**	**317–330**	**330–348**	**348–364**	**364–378**	**378–388**	**388–402**	**402–445**	**445–498**	**498–565**	**565–602**	**4th cent**	**4/5th cent**	**5th cent**	**5/6th cent**	**4/6th cent**	**868–1025**	**1025–1204**	**1204–**	**unc**	**Latest Coin / Comments**
1890	5/6	1						1																SF 1085 (Cat 69): 364–75
1954	5	1														1								SF 1126 (Cat 531): ?late 4th / early 5th
1963, 2408a-b	3	2									1					1								SF 2408a (Cat 286): *c.* 410–35
1964	5	1								1														SF 2383 (Cat 151): 388–402
1964, 2420a-b	5	2														1			1					SF 2420a (Cat 785): ??5th cent
2000	8	1										1												SF 1191 (Cat 352): 457–74
2011	3	1																			1			SF 22: 1071–78
2050	15	2																		2				SF 1136: 886–912; SF 1138: 10th cent
2052	14	1																		1				SF 2162: *c.* 976–1025
2053	13/14	1																1						SF 1161 (Cat 438): ?cast, ?*c.* 450–75
2056	14/15	1																				1		SF 1160: Med Cat 1179
2058	13/14	1																			1			SF 1139: 10th cent
2060	14/15	1																				1		Med Cat 1183: SF 1142
2069	14/15						1																	SF 1145 (Cat 38): 350s
2070	14/15	3																			2	1		SF 1195: *c.* 1187
2072	14/15	1																				?		Med Cat 1185: SF 1151
2073	14/15	1																				1		SF 1163
2077	9	4													1	1		2						SF 1167 & 2012 (Cat 958–9): ?5/6

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
2080	14/15	1																			1			SF 1166: 11th cent
2086	14/15	1																				1		Med Cat 1188: SF 1174
2090	14/15	3																			1	2		SF 1183: *c.* 1310
2091	14/15	1																				1		Med Cat 1166: SF 1176
2092	14/15	1	1																					SF 1181 (Cat 11): pre-4th cent
2096	8	3									2							1						SF 1194 (Cat 960): ?5/6
3020	10-13a	2																		2				SF 2402: 976–1025
3027	4	1			1																			SF 2143 (Cat 21): *c.* 320–24
3028	14a	1					1																	SF 2005 (Cat 30): 348–early 350s
3042	4	1						1																SF 2003 (Cat 83): 367–75
3048	9-10	3									1	1				1								SF 2097 (Cat 350): ??450–57
3049	14a	1																				1		SF 2006: 1230–37
3059	14a	1					1																	SF 2010 (Cat 63): ?355–61
3066	15	1																				1		SF 2040: 1225–30
3075	10	3								1								1				1		SF 2025: 1323–35
3076	14	1														1								SF 2077 (Cat 645): ?4/5
3081	15	1																				1		Med Cat 1195: SF 2026
3098	12/13	1																1						SF 1036 (Cat 441): ?cast, ?450–75
3105	10	6	1					1			1		2	1										SF 2051 (Cat 645): 574/5

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
3108	10	1																1						SF 2058 (Cat 754): ??5
3109	12/13	1																1						SF 2044 (Cat 440): ?cast, ?*c.* 450–75
3115	10	4														1		3						?5/6
3133	14/15	1																				1		SF 2069: 1244–54
3134	8	2								1		1												SF 2493 (Cat 354): 457–74
3134, 2673a-b	8	2									2													SF 2673a (Cat 278): ?423–25; SF 2673b (Cat 295): ??410–35
3136	8	1								1														SF 2084 (Cat 199): 388–402
3156	3-5	5							1	3	1													SF 2075 (Cat 253): 408–23
3159	9	5								1					1			3						?5/6
3166	3-5	1																		1				SF 2068: 920–44
3184	6	2														1	1							SF 2108 (Cat 328): ??425–35
3190	3-5	1																	1					SF 2086 (Cat 1093): 4th/6th cent
3192	6	1					1																	SF 5449 (Cat 45): 355–61
3193	12a	1														1								SF 2115 (Cat 647):?4th/5th cent
3227	5	1																1						SF 2199 (Cat 969): ?5/6
3240	6	1																1						SF 2153: ?5/6
3245	13a	2	1																			1		SF 2107 (cat 970): 1287–1308
3257	5	6								1	1					3		1						SF 2122 (Cat 296): ?410–35; SF 2137 (Cat 973): ?5/6

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
3257, 2136a-b	5	2																2						SF 2136a-b (Cat 971–2): ?5/6
3271	13b	1													1									SF 2131 (Cat 464): ?4th cent
3304	13a	2											1									1		SF 3128: 1230–37
3325	9-10	6					2	1		1								2						SF 2173 (Cat 171): 388–402; SF 2180 (Cat 441): ?cast, ?*c.* 450–75
3339	5	5													1	2		1	1					SF 2165 (Cat 975): ?5/6
3340	6	4								1						2			1					SF 2142 (Cat 223): ?388–402
3347	6	1								1														SF 2152 (Cat 200): 388-402
3361	5	1								1														SF 2170 (Cat 201): 388–402
3386	8?	1														1								SF 2318 (Cat 494): ??4th–early 5th
3391	1-2	1	1																					SF 1202: ?260–68
3398	5	2						1								1								SF 2177 (Cat 88): 364–78; SF 2185 (Cat 652): ?4/5
3403	8?	1								1														SF 2181 (Cat 141): ?388–402
3477	8	5									1	1						3						SF 2568 (Cat 697): ??445–98
4001	10	8						2				1				1	1	2	1					SF 2455 (Cat 370): ?445–98
4009	-	1																				1		Med Cat 1178: SF 2336

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
4018	6	15			1				2	2	5					3		2						SF 2439 (Cat 335): ?435
4018, 2426a-b	6	2								1	1													SF 2426a (Cat 285): ?410–35
4019	7	1																1						SF 2390 (Cat 979): ?5/(6)
4029	8	3					1				1	1												SF 2423 (Cat 373): ?474–91
4033	6	1										1												SF 2417 (Cat 372): ??467–72
4038	6	2														1		1						SF 2654 (Cat 980): ?/6
4039	6	1																1						SF 2613 (Cat 981): ?5/6
4051	8	1														1								SF 2610 (Cat 584): 4/5
4056	6	11					2		1	3						2	2						1	SF 2531 (Cat 176): *c.* 388–95; SF 2602 (Cat 708): ?5
4056, 2065a-b	6	2									1						1							SF 2065b (Cat 303): ?425–35
4057	3-5	4					2								1				1					SF 2643 (Cat 37): 355–61
4064	13a	1						1																SF 2418 (Cat 95): 364–78
4078	7	1						1																SF 2475 (Cat 96): ?364–78
4081	7	3																2						SF 2496 (Cat 442): ?cast, ?*c.* 450–75
4090	6	1													1									SF 2991 (Cat 232): *c.* 364–402
4094	8	3										2						1						SF 2655 (Cat 685): *c.* 445–98
4094, 2694a-b	8	2																1	1					SF 2694a (Cat 714): 5/6
4094, 2695a-b	8	2																2						SF 2695a-b (Cat 982–3): ?5/6

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
4097	9	1																1						SF 2532 (Cat 826): ?5/(6)
4100, 2530a-b	3-5	2							1						1									SF 2530a (Cat 134): ?378–88
4100	3-5	4			1			1		1					1									SF 2554 (Cat 202): 388–402
4105	1-2e	1																1						SF 2557 (Cat 723): ?5/6
4128	14/15	1																		1				SF 2628: 10th cent
4129	-	5					1													2		1		Med Cat 1193: SF 2688
4133	1-2d	1														1								SF 2626 (Cat 481): ?4/5
4157	3-5	1														1								SF 2648 (Cat 2648): ?4/5
5004	9	1																1						SF 2428 (Cat 724): ?5/6
5005	9	2																1					1	SF 2474: 5/6
5007	12/13	2																			1	1		Med Cat 1186: SF 2313
5014	7	3							1									2						SF 3030 (Cat 443): ?cast, ?*c.* 450–75
5019	10	1														1								SF 2322 (Cat 586): 4/5
5019, 2323a-b	10	2															1	1						SF 2323a (Cat 742): ?5; SF 2323b (Cat 984): ?5/6
5024	12/13	1												1										SF 2419 (Cat 413): 578–602
5045	8/9	11							1		1		1				2	5					1	SF 2329 (Cat 389): 518–27
5057	9	1															1							SF 2395 (Cat 789): ?5
5069	-	1											1											SF 2394 (Cat 398): 562–63
5071	9	4											1					3						SF 2400 (Cat 396): 538/9

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
5071, 2556a-c	9	3									1	2												SF 2556a & c (Cat 349 & 351): ??450–57
5074	6	13					1			1	1	4				2	2	2						SF 2546 (cat 365): 457–74
5074, 2490a-d	6	4									2					1		1						SF 2490b (Cat 271): ?410–35
5074, 2540a-b	6	2						1								1								SF 2540b (Cat 567): ?4th / early 5th cent
5079	8	2																1		1				SF 2415: 10th cent
5097	5															1								SF 2430 (Cat 588): 4/(5)
5100	9	1	1										1											SF 2557 (Cat 402): 533/4
5101	9											1												SF 2431 (Cat 768): ?5
5108	-	2									1							1						SF 2441(Cat 331): (404–06) or 425–35; SF 2449 (Cat 821): 5/(6)
5126	9	1																1						SF 2472 (Cat 988): ?5/6
5128	12/13	1															1							SF 2458 (Cat 790): ?5
5133. 2680a-c	5	3														3								All ?4/5
5140	3	3				1					1					1								SF 2636 (Cat 291): ?410–35
5145	8	1																1						SF 3290 (Cat 447): ?cast, ?450–75
5153	7	1														1								SF 2488 (Cat 554): 4th / early 5th cent
5173	5	1														1								SF 2558 (Cat 610: (4)/5

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
5199, 2681a-zz	5	52				1	1	1	1	8	5				3	24	5	3						SF 2681l-m (Cat 281 & 270): *c.* 410–35; others poss later
5208, 2690a-b	5	2							1						1									SF 2690a (Cat 116): 380s
5264	10	3	1															2						SF 2792 (Cat 813): 5/6
5265	15	4																		2		1		Med Cat: SF 2825
5267	9	1																1						SF 2814 (Cat 990): ?5/6
5269	5	1																1						SF 2806 (Cat 726): ?5/6
5270	8	2																1					1	SF 2833 (Cat 992): ?5/6
5272	-	1																	1					SF 2688 (Cat 1071): 4th to 6th cent
5276	15	3																			1	2		Med Cat 1190–1: SF 2819, 2820
5280	9	1														1								SF 2809 (Cat 568): ?4th / early 5th cent
5282	-	1																1						SF 2815 (Cat 814): 5/6
5297	15	4									1							3						SF 3165 (Cat 251): 404–08: rest ?5/6
5301	12/13	7	1		1										1					2	1	1		Med Cat 1198: SF 3017
5302	5	15						2	3	2	1				1	3		3						SF 3023 (Cat 292): ?410–35; others poss. later
5305	7	19									4	1			2	6	1	5						SF 3052 (Cat 344): ?450–57; others poss later
5306	9	1										1												SF 3012 (Cat 374): ?474–91

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
5322	12/13	4																		4				
5327	5	7			1				1	2						2		1						SF 3116/7 (Cat 168–9): 388–95; SF 3046 (Cat 1001): ?5/6
5331	10	14				1						3				1	2	6	1					SF 3075 (Cat 383): 491–98
5341	4-5	1								1														SF 3121(Cat 153): 388–92
5342	5	1								1														SF 3126 (Cat 152): 388–95
5343	5	7						1		1		1			1	1		1	1					SF 3125 (Cat 336): 445–50
5343, 3133a-b	5	2							1	1														SF 3133a (Cat 217): 388–402
5343, 3140a-c	5	3														3								All 4/5
5351	5	2														1		1						SF 3071 (Cat 1006): ?5/6
5354	-	1																		1				SF 3135: 10th cent
5358	9	1														1								SF 3067 (Cat 574): ?4th / early 5th cent
5359	12/13	2													1					1				SF 3090: 10th cent
5359, 3134a-b	12/13	2																		1	1			SF 3134b: 11th cent
5359, 3277a-b	12/13	2													1	1								SF 3277a (Cat 575): ?4th / early 5th cent
5360	3	1						1																SF 3281 (Cat 109): ?364–78 or 350s–61
5361	12/13	3												1		1	1							SF 3220 (Cat 414): 589/90
5362	9	14			1	2					3					3	1	4						SF 3208 (Cat 1065): ?5/6, poss ?6
5364	6	2														1		1						SF 3114 (Cat 1009): ?5/6

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
5364, 3136a-l	6	12							1				1					10						SF 3136a (Cat 393): ?541/2
5364, 3151, a-k	6	12								1						7		3					1	SF 3151g-I (Cat 332 & 1020): ?5/6
5369, 3169a-f	6	6										1				1	1	3						SF 3169a (Cat 360): 457–74; others poss later
5376	8	1																1						SF 3103 (Cat 1023): ?5/6
5381	6/7	1																1						SF 3141 (Cat 1024): ?5/6
5390	6	1																1						SF 3189 (Cat 1025): ?5/6
5391	6	1									1													SF 703c (check) (Cat 293): *c.* 410–35
5402	10	3															1	2						SF 3218 & 3226 (Cat 1027 & 731): ?5/6
5403	8	13										4				3		6						SF 3238, 3240, 3243, 3246 (Cat 675, 674, 348, 347 & 368): ?450–98
5403, 3259, a-n	8	14								1		3				3		7						SF 3259c (Cat 388): ?491–98
5408	5	5					1			1	1					2								SF 3149 (Cat 259): 408–23
5408, 3145a-b	5	2							1							1								SF 3145a (Cat 121): 380s; 3145b (Cat 541): ? late 4th / early 5th cent

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
5409, 3166a-t	5	20					1									9	1	5	4					Only SF 3166a (Cat 58) dated: 355–61; 5 coins ?5/6
5423	-	1														1								SF 3170 (Cat 547): ?late 4th / early 5th cent
5426	10	2																2						SF 3228 & 3233 (Cat 1041–42): ?5/6
5440	12	1										1												SF 3171 (Cat 677): ?457–498 or later
5449	6	1				1																		SF 3201(Cat 39): 355–61
5474	6	1																					1	SF 3174: ?
5494	6	1																1						SF 3195 (Cat 735): ?5/6
5508	10	1																1						SF 3194 (Cat 1043): ?5/6
5509	9	5												1		1		3						SF 3199 (Cat 416): 593/4
5511	10	1																1						SF 703 B temp (Cat 1046): ?5/6
5531	8	1																1						SF 3083 (Cat 1048): ?5/6
5539	12/13	1												1										SF 3198 (Cat 411): 571/2
5552	-	2															1		1					SF 3225 (Cat 801): ?5
5553	10	1									1													SF 3234 (Cat 320): ?425-35 or poss later
5564	8	1																1						SF 3219 (Cat 1049): ?5/6
5566	8	1																1						SF 3278 (Cat 1050): ?5/6
5567	8	2								1							1							SF 703a temp (Cat 711): ?5

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
5571, 3254a-d	6	4					1				1					1		1						SF 3254a (Cat 297): ?*c.* 410–35; 3254c (Cat 1051): ?5/6
5579	7	17					1					1						15						SF 3263 (Cat 371): ?461–65; many ?5/6
5599	7	1														1								SF 3269 (Cat 547): late 4th / early 5th cent
5613	6	2																2						SF 3282–3 (Cat 1061–2): ?5/6
5622	6	1															1							SF 3312 (Cat 802): ?5
5630	8/9	8	1				2	3	1			1												SF 3297 (Cat 368): ?457–74
5635	6										1													SF 3287 (Cat 298): ??c/ 410–35
5931		1																					1	SF 3085: ?
?, SF 550		1																1						SF 550 (Cat 1063): ?5/6
Wall Matrix, SF 831		1														1								SF 831: *c.* 395–423
Area M, 1017		1								1														SF 1017 (Cat 197): 388–402
U/s, 1125		1					1																	SF 1125 (Cat 33): 351–55
Chance find, SF 1143		1					1																	SF 1143 (Cat 36): 355–61
Room V cleaning, SF 1939		1																				1		
?, SF 2129a-b		2									1							1						SF 2129a (Cat 258): 408–23; 2129b (Cat 765): ?5/6

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
?, SF 2150		1														1								SF 2150 (Cat 609): 4/5
? (Room S), 2112		1						1																SF 2112 (Cat 105): ?364–78
?, SF 2159		1															1							SF 2159 (Cat 803): ?5
?, SF 2647		1						1																SF 2647 (Cat 70): 364–78
Cleaning Room 22, SF 2292		1													1									SF 2292 (Cat 267): ?late 4th cent
Cleaning Room 25, SF 2294																1								SF 2294 (Cat 229): ?late 4th / early 5th cent
Cleaning Room 25, SF 2295		1									1													SF 2295 (Cat 305): ? *c.* 420s–35
Cleaning Room 25, SF 2296		1								1														SF 2296 (Cat 158): 388–92
Topsoil – church on top of castle, SF 2702		1																				1		
Room 19, SF 2807		1																1						SF 2087 (Cat 1064): ?5/6
?, SF 3137		1									1													SF 3137 (Cat 318): ?425–35 or later
Basilica chance find, SF 1 / 2		1								1														SF 1 / 2 (Cat 218): 388–402
?, SF 10/11		1									1													SF 10/11: Cat 316: 425–35
By 5369 in set, ?SF		1													1									SF ? (1103): 4th or later

Context	Phase	freq	Pre-300	296–317	317–330	330–348	348–364	364–378	378–388	388–402	402–445	445–498	498–565	565–602	4th cent	4/5th cent	5th cent	5/6th cent	4/6th cent	868–1025	1025–1204	1204–	unc	Latest Coin / Comments
Cleaning Room 21, SF?		1									1													SF ? (Cat 290): *c.* 410–35
Cleaning Room 21, SF?		1											1											SF (Cat 390)?: 518–27
Condi Minerva spoil heap, ?SF		1																		1				SF ?: 10th cent
South of City Wall, Trench 2		1																			1			SF ?: 1081–1118
Bap 2153		1					1																	SF 2160 (Cat 62): ?355–61
Bap 2256		1				1																		SF 57 (Cat 24): 330–36
Bap 2268		1																			1			SF 65: 1071–78
Bap 2279																						1		SF 99: late 13th – mid-14th cent
Bap 2280		2								1														SF 506 (Cat 198): 388–402
Bap 2285		2																		2				SF 101: 945–*c.* 950
Bap 2305		1																		1				SF 472: 950/9
Bap 2313		1														1								SF 507 (Cat 480): ?late 4th to 5th cent
Bap 2323		1	1																					SF 510 (Cat 450): pre-4th cent
Bap 2340		2										1	1											SF 547 (Cat 397): 548/9
Bap 2341, 541a-b		2													1			1						SF541b (Cat 961): ?5/6

Appendix 7.1. Catalogue of coins from the Triconch Palace and Merchant's House – 9th to 17th century

Pagona Papadopoulou

The die axis is always at 6 o'clock, unless otherwise indicated. Catalogue numbers followed by an asterisk refer to coins found in the Triconch in 1994–98, already published in Guest *et al*. 2004, 300–4. It was not possible to examine these coins; identifications rely on the existing publication.

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	Basil I (867–86)					
1106	AR Miliaresion (3.20; 23; 12)	Constantinople	867–86	DOC 3, 7	3020/1188	
1107	AE Follis (3.98; 23)	Constantinople	868–70	DOC 3, 8a	3020/2402	
1108	AE Follis (6.36; 25)	Constantinople	868–70	DOC 3, 8b	1114/1998	
1109*	AE Follis	Constantinople	868–70	DOC 3, 8b	1114/49	
1110	AE Follis (5.61; 25)	Constantinople	870–79	DOC 3, 10(d?)	1114/636	
	Leo VI (886–912)					
1111	AE Follis (7.20; 24)	Constantinople	886–912	DOC 3, 8	2050/1136	Overstrike
1112*	AE Follis	Constantinople	886–912	DOC 3, 8	3000/23	
	Romanus I (920–44) and Constantine VII (913–59)					
1113	AE Follis (2.80; 24)	Constantinople	920–31	DOC 3, 23	2070/1162	Traces of understriking
1114	AE Follis (6.40; 24)	Constantinople	931–44	DOC 3, 25	3166/2068	Overstrike on Leo VI, DOC 3, 6 or 8
	Constantine VII (913–59)					
1115	AE Follis (5.03; 27)	Constantinople	945–50	DOC 3, 26	5359/3134A	Overstrike on Constantine VII–Romanus I, DOC 3, 25. Found together with no 1153(?)
1116	AE Follis (6.22; 26;5)	Constantinople	945–50	DOC 3, 26	1469/2002	Overstrike on Constantine VII–Romanus I, DOC 3, 2.
1117*	AE Follis	Constantinople	945–50	DOC 3, 26	1000/62	
1118	AE Follis (5.89; 25)	Constantinople	950–59	DOC 3, 27	4129/2693	
1119	AE Follis (4.76; 25)	Constantinople	950–59	DOC 3, 27	2305/472	
	Nicephorus II (963–69)					
1120	AE Follis (6.88; 24)	Constantinople	963–69	DOC 3, 7	1411/2794	Overstrike on Constantine VII, DOC 3, 26
1121	AE Follis (5.86; 29)	Constantinople	963–69	DOC 3, 7	5322/3094	Traces of understriking
1122	AE Follis (6.22; 28)	Constantinople	963–69	DOC 3, 7	5265/2793	
1123	AE Follis (5.81; 22)	Constantinople	963–69	DOC 3, 8	5322/3095	
	John I (969–76)					
1124	AR Miliaresion (1.84; 20; 12)	Constantinople	969–76	DOC 3, 7a	1114/1123	
	Basil II (976–1025)					
1125	AV Tetarteron (4.05; 19)	Constantinople	977–89	DOC 3, 12 var.	5301/ 3020	Reverse: only one pellet on arms of nimbus cross
	Michael VII (1071–78)					
1126*	AE Follis	Constantinople	1071–78	DOC 3, 14	2011/26	
	Nicephorus III (1078–81)					
1127	AE Follis (3.97; 20)	Constantinople	963–69	DOC 3, 9	1829/2087	Broken
1128	AE Follis (3.97; 20)	Constantinople	963–69	DOC 3, 9	5301/3019	

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
	Anonymous Folles (970 – *c.* 1080)					
	Class A1					
1129	AE Follis (6.53; 28)	Constantinople	970–76	DOC 3, A1	5359/3090	Overstrike on Nicephorus III, DOC 3, 7 or 8
1130	AE Follis (6.32; 27)	Constantinople	970–76	DOC 3, A1	5301/3001	
1131	AE Follis (6.12; 22)	Constantinople	970–76	DOC 3, A1	5265/2823	
	Class A2					
1132	AE Follis (12.48; 30; -)	Constantinople	976–1030/5	DOC 3, A2.2	2052/2162	
1133	AE Follis (15.87; 30)	Constantinople	976–1030/5	DOC 3, A2.2	2058/1139	
1134	AE Follis (12.87; 31)	Constantinople	976–1030/5	DOC 3, A2.5	5354/3135	Partly worn out by use
1135	AE Follis (14.43; 31)	Constantinople	976–1030/5	DOC 3, A2.7	1114/552	
1136	AE Follis (15.32; 32)	Constantinople	976–1030/5	DOC 3, A2.16	1114/632	
1137	AE Follis (8.07; 29)	Constantinople	976–1030/5	DOC 3, A2.34	2050/1138	Worn out by use
1138	AE Follis (8.89; 29; 7)	Constantinople	976–1030/5	DOC 3, A2	1114/652	Very worn out by use
1139	AE Follis (10.05; 30; -)	Constantinople	976–1030/5	DOC 3, A2	1300/989	Almost illegible. Pierced to the right of Christ's head
1140	AE Follis (11.81; 32; -)	Constantinople	976–1030/5	DOC 3, A2	1114/1008	Very worn out by use
1141	AE Follis (9.84; 32)	Constantinople	976–1030/5	DOC 3, A2	5322/3043	Pierced
1142	AE Follis (11.54; 30; 7)	Constantinople	976–1030/5	DOC 3, A2	4128/2628	
	Class A3					
1143	AE Follis	Constantinople	976–1030/5	DOC 3, A2.45	5322/3048	Class A3
1144	AE Follis	Constantinople	976–1030/5	DOC 3, A2	1114/ 1977	Class A3(?)
	Class B					
1145	AE Follis (11.02; 27)	Constantinople	1030/5–42	DOC 3, B	1409/ 555	
1146	AE Follis (11.93; 27)	Constantinople	1030/5–42	DOC 3, B	3000/1186	
1147	AE Follis (7.43; 28)	Constantinople	1030/5–42	DOC 3, B	5079/2415	
	Class C					
1148	AE Follis (7.69; 28)	Constantinople	1042–50	DOC 3, C	1114/834	Slightly worn out by use
	Class I					
1149	AE Follis	Constantinople	1075–80	DOC 3, I	1114/950	Partly worn out by use
1150	AE Follis	Constantinople	1075–80	DOC 3, I	2090/1182	
1151	AE Follis	Constantinople	1075–80	DOC 3, I	5007/2303	Corroded. Very worn out by use

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
1152	AE Follis	Constantinople	1075–80	DOC 3, I	5276/2821	
1153	AE Follis	Constantinople	1075–80	DOC 3, I	5359/3134B	Traces of understriking. Found together with no. 1115 (?)
	Alexius I (1081–1118)					
1154	AE Tetarteron (2.41; 20)	Thessalonica	1092–1118	DOC 4, 40a	2080/1166	Overstrike – on Anonymous Follis K, DOC 3, K (?)
1155	AE Tetarteron (3.23; 21)	Thessalonica	1092–1118	DOC 4, 40a	South of City Wall, Trench 2/-	
	Isaac II (1185–95)					
1156	Bil Stamenon (2.88; 24)	Constantinople	1185–95	DOC 4, 3d	1114/2089	
1157	Bil Stamenon (2.45; 25)	Constantinople	1185–95	DOC 4, 3	1114/924	
	Theodore Comnenus Ducas (1225/7–30)					
1158	Bil Stamenon (2.90; 30)	Thessalonica	1229/30?	DOC 4, 10b	3066/2040	
	Manuel Comnenus Ducas (1230–37)					
1159	Bil Stamenon (3.77; 30)	Thessalonica	1230–37	DOC 4, 3 (a?)	3304/2128	
1160	Bil Stamenon (2.56; 21)	Thessalonica	1230–37	DOC 4, 4var	3049/2006	Obverse: ∵ to the right above the throne
	John III Vatatzes as emperor of Thessalonica (1246–54)					
1161	Bil Stamenon (2.99; 26)	Thessalonica	1246–48/9?	DOC 4, 3	2090/1185	
1162	Bil Stamenon (2.47; 28)	Thessalonica	1246–48/9?	DOC 4, 4	3133/2069	
1163	Bil Stamenon (0.92; 16)	Thessalonica	1246–48/9?	DOC 4, 4	2073/1163	Broken
	Latin imitative (1204–61)					
	Small module					
	Type E					
1164	Bil Stamenon (1.14; 22; 5)	Constantinople	1204–61	DOC 4, 34	1114/ -	
	Unidentified 13th-century stamena					
1165	Bil Stamenon (2.32; 28)		after 1204		4129/2642	Obverse: Facing bust of Archangel Michael (?) ; Reverse: Emperor and military saint holding between them shaft surmounted by unidentified object
1166	Bil Stamenon (1.95; 20)		after 1204		2091/1176	Obverse: Archangel Michael holding labarum-headed sceptre; Reverse: Emperor and military saint holding between them labarum (?)
1167	Bil Stamenon (2.37; 25; -)		after 1204		1468/2073	Overstrike. Obverse: Nimbate figure (?) on figure seated on

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
						throne with back; Reverse: Archangel Michael or winged emperor holding sceptre cruciger, X in left field on standing emperor holding akakia, Δ C T vertically on right field
	Non- Byzantine coins (10th–12th century)					
	Italy					
	Otto III (983–1002)					
1168	AR Denaro (0,94; 11; -)	Pavia	996–1002	CNI IV, 482: 12–13	4129/2623	Broken
	Lucca (1040 – *c.* 1200) – in the name of Henry I (1039–56)					
1169	AR Denaro (0.62; 16; -)	Lucca	1100–30	Matzke 1993, K.C.	1473/688	
1170	AR Denaro (0.75; 16; -)	Lucca	*c.*1150	Matzke 1993, K.E	1114/996	
	France					
	Bishopric of Le Puy					
1171	AR Denier (0.56; 16; -)	Le Puy	*c.* 1187 (?)	Poey d'Avant I, 2228; Metcalf 1995, 569	2070/1195	
	Frankish deniers tournois					
	Guy II of la Roche (1287–1308)					
1172*	AR Denier tournois (0.57; 19; 8)	Thebes	1280–1308	Metcalf 1995, 1059–76	1112/509	
1173	AR Denier tournois (0.71; 13; 2)	Thebes	1287–1308	Metcalf 1995, 1059–76	3245/2107	
1174	AR Denier tournois (0.62; 18; 5)	Thebes	1287–1308		5265/2818	
	Philip of Taranto (*c.* 1310)					
1175	AR Denier tournois (0.48; 15; 11)	Lepanto	*c.*1310	Metcalf 1995, 1082–90	1114/575	
1176	AR Denier tournois (0.56; 18)	Lepanto	*c.*1310	Metcalf 1995, 1091–7	2090/1183	
	John of Orsini (1323–35)					
1177	AR Denier tournois (0.74; 17; 5)	Arta	1323–35	Metcalf 1995, 1134–7	3075/2025	Clipped in square shape
	Unidentified deniers tournois					
1178	AR Denier tournois (0.75; 12; 8)				4009/2336	
	Venetian coins					

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
1179	AR Soldino (0.48; 14; 8)	Venice	1367–82	Papadopoli 1, 216:5 Pl. XII, 12	2056/1160	
1180	Bil Tornesello (0.36; 14; 9)	Venice	1367–82	Papadopoli 1, 217:7 Pl. XII, 14	3000/1187	
	Francesco Foscari (1423–57)					
1181	AR Soldino (0.29; 12; 2)	Venice	1423–57	Papadopoli 1, 207:8 Pl. XV, 6	Room 24/1939 (?)	
	Cristoforo Moro (1462–71)					
1182	Bil Tornesello (0.45; 14; -)	Venice	1462–71	Papadopoli 1, 291:10 Pl. XVI, 14	2075/1159	
	Unidentified torneselli (1343–1471)					
1183	Bil Tornesello (0.34; 15; -)	Venice	1343– *c.*1400		2060/1142	
1184	Bil Tornesello (0.33; 11; -)	Venice	1343–1471		1114/676	
1185	Bil Tornesello (0.46; 13; -)	Venice	1343–1471		2072/1151	
	Leonardo Loredano (1501–21)					
1186	AE Bagattino	Venice	1501–21	Papadopoli 2, 113: 77–8 Pl. XXII, 13	5007/2313	Struck for Padova
	Anonymous bagattini					
1187	AE Bagattino (0.93; 18)	Venice	1485–99	Papadopoli 2, 549:15 Pl. LI, 4	1114/868	Struck for Sebenico
1188	AE Bagattino (1.00; 16; 12)	Venice	1536–37	Papadopoli 2, 504:34 Pl. XLV, 3	2086/1174	Mint-master: Ruggero Contarini (1536–37)
1189	AE Bagattino (1.19; 17; 12)	Venice	1519–1630	Papadopoli 2, 501:21 Pl. XLIV, 13	2070/1149	
1190	AE Bagattino (1.49; 18)	Venice	1519–1630	Papadopoli 2, 501:21 Pl. XLIV, 13	5276/2819	
1191	AE Bagattino (1.00; 17; 12)	Venice	1519–1630	Papadopoli 2, 501:21 Pl. XLIV, 13	5276/2820	Corroded
1192	AE Bagattino (1.21; 16; 12)	Venice	1519–1630	Papadopoli 2, 502:24 Pl. XLIV, 14	1114/654	
1193	AE Bagattino (1.59; 17)	Venice	1519–1630	Papadopoli 2, 500:16-501:19; 502:26-504:32; 505:37-506:41; 507:46 Pl. XLIV, 11–12, 15–16 Pl. XLV, 1–2, 5, 8	4129/2688	Very corroded
1194	AE Bagattino (1.97; 17; 9)	Venice	1519–1630	Papadopoli 2, p. 500:16-516:97. Pl. XLIV, 11- Pl. XLV,	5265/2825	Very corroded

Cat. No.	Type/Ruler	Mint	Date	Reference	Context/SF number	Notes
				11		
	Marino Grimani (1595–1601)					
1195	AE Double Bagattino or half Quattrino (0.78; 11; -)	Venice	1595–1601	Papadopoli 2, 463:186–90. Pl. XLIV, 2	3081/2026	Cancelled ?
	Ottoman coins					
	Selim I (1512–20)					
1196	AR Akçe (0.69; 11; 12)	Konya	.H.918=1512–13	Pere 1968, 105: 135	Sieving/1940	Worn out by use
	Gubbio – Italy					
	Francesco Maria I della Rovere (1506–16; 1521–38)					
1197	AE Picciolo (0.43; 15; 12)	Gubbio	1508–16	CNI XIV, 31:18var.	5301/3017	
	Stray finds					
	Anonymous folles					
	Class A1					
1198	AE Follis (7.23; 25)	Constantinople	970–76	DOC 3, A1		Found at Butrint, south of the theatre
	Class A2					
1199	AE Follis (6.58; 31)	Constantinople	976–1030/5	DOC 3, A2		Found in Ksamili in 2003. Worn out by use; slightly broken
	Michele Morosini (1382)					
1200	Bil Tornesello (0.45; 16; 12)	Venice	1382	Papadopoli 1, 221:4 Pl. XIII, 4	Church outside east castle wall/2702	Slightly broken

Catalogue references

CNI	*Corpus Nummorum Italicorum*
DOC 3	Grierson 1973
DOC 4	Hendy 1999
DOC 5	Grierson 1999
Metcalf	Metcalf 1995
Papadopoli	Papadopoli Aldobrandini 1967
Pere	Pere 1968

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Index

acropolis, 1, 62, 264
Adriatic Sea, 95, 100, 101, 263
Aegean Sea, 88, 89, 93, 248, 253, 255, 258, 263
Africa. *See* North Africa
al Idrisi, Ibn, 104, 266
Albania, 23, 96, 98, 99, 100, 103, 104
Ambracia, Arta (Greece), 100, 258
Ambracian Gulf, 93
amphorae, 204, 248, 252, 253, 255, 263, 264
  burials, 8, 21, 48, 252, 255, 256
  necks in furnaces, 250, 252, 253
Angevins, 95, 103, 265
animals. *See* faunal remains
Aphrodisias (Turkey), 104
aqueduct, 62
archaeobotanical material, 15, 23–24
  bitter vetch, 21
  cereals, 15, 21, 23, 263
  cereals, barley, 21, 23
  cereals, einkorn, 23
  cereals, emmer wheat, 21, 23
  cereals, free-threshing wheat, 21, 23
  cereals, millet, 21, 23
  cereals, oat, 21, 23
  elder, 21, 23
  fruit, 15, 21, 23
  fruit, figs, 21
  fruit, grapes, 21
  lentils, 21, 23
  Spanish vetchling, 23
Arta *see* Ambracia
Asia Minor, 253
Athens, 88, 89, 92, 93, 98, 104, 253, 265
Aulon, modern Vlora (Albania), 99

Balkans, 40, 86, 89
Baptistery, 35, 63, 95, 98, 101, 257, 258, 262, 264, 267
bath-house, 6, 68, 73, 110, 123, 135, 173, 225, 240, 259, *See also* Room 28, Room 36
Beirut, 88, 89, 92
Benedict of Peterborough. *See* Roger of Hoveden
Benjamin of Tudela, 104
birds. *See* faunal remains
Biringuccio, Vannoccio, 73
Bohemond, 104
Brescia (Italy), 256
British Mediterranean Fever Commission, 64
British Museum, London, 78
burials (cemeteries, graves, skeletons), 8, 11, 12, 13, 14, 15, 21, 42–67, 73, 76, 108, 109, 112, 120, 129, 159, 172, 173, 218, 250, 252, 253, 254, 255–256, 258–259, 260, 261–262, 263, 264, 265–266
  Corinth, 46, 47, 65, 261
  Croatia, 46
  Eleutherna (Crete), 58
  Herculaneum, 65
  Isthmia (Greece), 46
  Korytiani (Greece), 47, 261
  La Selvicciola (Italy), 46
  Lerna Hollow (Corinth), 46
  Raucourt (France), 65
  Santa Eulaia, Alava (Spain), 65
  Vallerano (Italy), 58
  Xironomi (Boeotia), 47–48, 66, 261
Butrint Archaeological Museum, 100, 101, 110
Bylis (Albania), 253

Calabria, 101, 253, 263
Cardiff Osteoarchaeology Research Group, 25
Carthage, 88, 89
cemeteries. *See* burials (cemeteries, graves, skeletons)
charcoal. *See* metalworking
chi-rho, 106, 108, 180–181, 190, 202, 207, 208, 247, 249, 258
Cilicia (Turkey), 98
city wall, 7, 8, 12, 101, 113, 137, 141, 161, 178, 181, 194, 196, 197, 207, 208, 222, 232, 241, 250, 251, 252, 255, 264, 265
  gates, 7, 8, 11, 12, 260, 261, 264, 265, 266
  towers, 12, 14, 38, 41, 266, 267

coin hoards, 78, 86, 88, 89, 93, 95, 96, 98, 101, 103, 253, 257, 265
  Butrint, 98, 101
  Gush Halav (Israel), 88
  Shën Dimitri (Albania), 103
  Shkodra (Albania), 101
  Volo (Greece), 88, 93
  Yale (Balkans?), 88, 93
  Zacha (Greece), 88, 93
coin issuers
  Alexius I Comnenus, 95, 98
  Alexius III, 101
  Anastasius, 89, 92
  Andrea Contarini, doge, 103
  Augustus, 87
  Basil I, 95, 260, 261
  Basil II, 11, 95, 96, 263
  Commodus, 87
  Constans II, 93, 95
  Constantine VII, 96
  Cristoforo Moro, 103
  Despotate of Epirus, 99–100
  Francesco Foscari, 103
  Francesco Maria I della Rovere, 103
  Gallienus, 87
  Guy II of la Roche, 103
  Heraclius, 93, 95
  Honorius, 88
  Isaac II Angelus, 98, 101, 104, 265
  Johannes, 88
  John I, 95, 263
  John II, 98
  John III Vatatzes, 100, 101
  John of Orsini, count of Kephallonia, 103
  Julia Domna, 87
  Justin I, 89
  Justin II, 220, 255
  Justinian I, 78, 89, 92, 93
  Leo I, 89
  Leo VI, 95, 96, 261, 263
  Manuel Comnenus, 265
  Manuel Comnenus Ducas, 100
  Manuel I, 98, 101
  Marcian, 89
  Marco Cornaro, 103
  Maurice Tiberius, 92, 93
  Michael II, 95
  Michael VII, 95, 96, 98
  Michael VIII, 101
  Nicephorus III, 95, 96, 98
  Otto III, 101
  Philip of Taranto as Despot of Romania, 103
  Phocas, 93, 95
  Selim I, 103, 267
  Suleiman the Magnificent, 103
  Theodore Comnenus Ducas, 100
  Theodosius II, 78, 87, 88, 89
  Thessalian League, 87
  Thrasamund, 89
  Valentinian I, 87
  Valentinian III, 88, 89
  William of la Roche, duke of Athens, 103
  Zeno, 89
coin mints
  Abbey of St Martin of Tours, 103
  Antioch, 87, 92
  Caesarea (Cappadocia), 87
  Carthage, 87, 92, 93
  Clarentza (Greece), 103
  Constantinople, 78, 87, 88, 89, 92, 93, 263
  Gaul, 86
  Gubbio (Italy), 103
  Heraclea, 87
  Konya (Turkey), 103
  Larissa (Greece), 86
  Le Puy (bishopric), 101
  Lucca (Italy), 101, 265
  Nicomedia, 87, 92
  Pavia (Italy), 101
  Rome, 78, 86, 87, 88, 89, 92, 93
  Siscia (Pannonia), 86
  Themisonium (Phrygia), 86, 87
  Thessalonica, 86, 87, 92, 93, 100, 101
  Trier (Germany), 87
  Valence (France), 101
coin reforms of Anastasius, 78, 89, 93, 253
combs, 208, 210, 216
Constantinople, 104, 255, 262, 263
copper alloy, bronze working. *See* metalworking
Corfu, 104, *See also* Straits of Corfu
Corinth, 88, 89, 92, 93, 98, 101, 263, 265
Crete, 98, 248, 253
crucibles. *See* metalworking
Crusades, 99, 101, 104, 265

Daimbert of Pisa, 104
Dalmatia, 103
Danube, 258
deities and demons
  Abrasax, Iao, Jahweh, 109, 115–116, 118
  Abyzou, Alabasdria, Gyllou, Lilith, 118
  Christ, Jesus, 96, 116, 119, 202
  Solomon, 118
  Venus, 212
Despotate of Epirus, 99
Diaporit (Albania), 64, 78, 87, 88, 89, 103, 256, 259
Dichin (Bulgaria), 89, 257
dolia. *See* storage containers
domus, 1, 2, 6, 7, 14, 68, 75, 76, 106, 107, 108, 109, 110, 111, 113, 156, 161, 172, 174, 180, 181, 189, 191, 194, 195, 202, 208, 211, 246–248, 249, 258, 260, 261, 263, 266
drains, drainage, 62, 66, 178, 180, 184, 190, 195, 198, 247, 256

dress accessories
  amulets, pendants, 106, 107, 108, 109, 112, 114–119, 174, 202, 208, 210–211, 247, 250, 258, 263
  beads, 108, 178, 213, 216–217
  brooches, fibulae, 106, 107, 109, 110, 123–127, 136, 152, 255, 267
  buckles, 107, 109, 110, 120, 121, 125, 127–129, 174, 208, 254, 258, 263
  earrings, 106, 107, 108–109, 111–113, 142, 172, 250, 263, 264
  finger-rings, 109, 112, 119–123, 172, 250, 263
  pins, 107, 133–135, 143, 178, 212, 213
  strap-ends, 110, 129–130, 263
Durrës, Dyrrhachium (Albania), 98, 99, 253, 261, 265

Egypt, 87, 89, 92, 93
entrances, 181, 208, 247, 248, 250, 257, 258
  east, 106
  north, 6, 225
  west, 2, 6, 152, 154, 176, 177, 186, 197, 211
Ephesus (Turkey), 104
Epirus (Greece), 98, 100, 104, 258
evil eye, 118, 247

faunal remains
  cats, 29, 31, 38
  cattle, 28, 29, 31, 32, 35, 37, 38, 39, 40, 41, 247, 248, 262, 263, 265
  chickens, cockerels, 29, 30, 31, 32, 34, 35, 40, 255, 258
  deer, fallow, 25, 29, 31, 38, 262, 265
  deer, red, 25, 29, 30, 31, 40, 265
  deer, roe, 29, 30, 31, 40
  dogs, 29, 31, 38
  equids, 29, 31, 38
  fish, 21, 25, 39, 252
  fowl, domestic, 25, 38, 40
  fowl, guinea, 25, 30, 38
  fowl, wild, 30, 248
  goats, 25, 28, 29, 31, 38, 40, 41, 247, 248, 252, 253, 255, 257, 262, 263, 265, 267
  peacocks, 38, 41, 267
  pheasants, 25, 30, 38, 40
  pigs, 28, 29, 31, 32, 34, 35, 38, 39, 40, 41, 247, 248, 252, 255, 262, 263, 265, 267
  sheep, 25, 28, 29, 31, 38, 39, 40, 41, 247, 248, 252, 253, 255, 257, 262, 263, 265, 267
  wild species, 29, 30, 31, 38, 40, 41, 262, 265
fish. *See* faunal remains; fishing and fish-processing
fishing and fish-processing, 8, 14, 15, 23, 39, 106, 107, 109, 111, 250, 251, 255, 260, 263, 267
  mussels, 8, 11, 12, 15, 107, 250, 251, 252, 253, 255, 256, 257, 260
forum, 23, 29, 39, 40, 41, 78, 96, 98, 103, 248, 252, 257, 261, 262, 265
fruit, 58, 62, 180, 188
furnaces, kilns, ovens, 8, 11, 15, 21, 68, 73, 76, 110, 111, 129, 145, 152, 172, 180, 185, 212, 248, 249, 250, 252, 253, 254

gaming pieces, 106, 107, 178, 208, 209, 214–217, 249, 250
glass
  beakers, cups, 222, 223–227, 236, 238, 243, 245
  bottles, flasks, jugs, 222, 233–236, 238, 240, 242, 243, 245
  bowls, 220, 222, 225, 227, 229, 236, 238, 239, 240
  goblets, wine glasses, 225, 227, 229, 231, 245, 267
  lamps, 231–233
  unguentaria, 222
graves. *See* burials (cemeteries, graves, skeletons)
Grunas (Albania), 23
Gubbio (Italy), 103

hammerscale. *See* metalworking
hearths, 6, 7, 8, 11, 68, 73, 75, 76, 111, 174, 199, 249, 250, 252, 253, 254, 264

Illyrian coast, 98, 99, 102, 103, 104
Institute of Archaeology, Albania, 1
iron working. *See* metalworking
Israel, 88
Italian Archaeological Mission, ix, 1
Italy, 40, 92, 96, 98, 101, 102, 248, 252, 258, 263, 264, 266, 267

Kenchreai, port of Corinth, 93
Kephalos (Greece), 93
kilns. *See* furnaces, kilns, ovens

Lake Butrint, 30, 64, 256, 267
Lake Maliq (Albania), 23
lamps, 106, 107, 111, 151, 152, 202, 207, 249, 250, 255, 258, 267, *See also* glass, lamps
Levant, 101, 102, 265
long gallery. *See* Room 18 (long gallery)

Malta, 64
Manuel I Comnenus, 104
Margaritone, Admiral, 104
Merchant's House, 1, 2, 7, 8, 11, 12, 14, 15, 21, 23, 25, 27, 30–31, 38, 39, 40, 41, 42, 43, 45, 47, 48, 50, 52, 54, 55, 56, 57, 58, 62, 63, 64, 65, 66, 68, 73, 74, 76, 107, 109, 110, 111, 246, 247, 248, 250, 252, 253, 255, 256, 260, 261, 262, 264, 265, 266, 267
metalworking, 11, 68, 76, 161, 254, 264, 265
  charcoal, 68, 73, 75, 76, 252
  copper alloy, bronze working, 68, 73–75, 76, 119, 252, 254, 265
  crucibles, 73, 75, 76, 111, 187, 252
  hammerscale, 73, 75, 76, 252, 254

  iron working, smithing, 8, 23, 68–74, 75, 76, 250, 252, 253, 254, 264
  silver smithing, 73, 265
  slag, 68, 73, 75–76, 161, 252
Michael II, 267
Michigan State University Forensic Biology Laboratory, 50
mosaics, 2, 6, 8, 14, 35, 107, 108, 109, 115, 116, 120, 154, 159, 167, 172, 173, 174, 178, 179, 180, 187, 188, 199, 202, 203, 204, 208, 211, 246, 247, 250, 257, 258, 261
mussel shells. *See* fishing and fish-processing

Naples, 40, 252
Nemea (Greece), 88, 93
Nicopolis ad Istrum (Bulgaria), 88, 89
Normans, 95, 98, 99, 104, 265
North Africa, 92, 248, 253, 255, 258

Otranto (Apulia), 100
Ottomans, 95, 103, 267
ovens. *See* furnaces, kilns, ovens

palaeopathologies, 42, 55
  anaemia, 57–62, 256, 262, 266
  brucellosis, 63–66, 262, 264, 266
  enamel hypoplasias, 56, 62, 66, 256
  malaria, 60–62, 64, 66, 256, 262
periosteal reactions, 57, 62, 256
porotic cranial lesions, 57–61
  scurvy, 57–62, 256, 262, 266
  tuberculosis, 63–64
  vertebral osteoarthritis, 55–56
Paphos (Cyprus), 101
Pergamon (Turkey), 104
peristyle courtyard. *See* Room 16 (peristyle courtyard)
Pernik (Bulgaria), 104
Phase 1 (3rd century and earlier), 1
Phase 2 (3rd to 4th century), 2
Phase 3 (*c*. AD 400), 2, 6
Phase 4 (*c*. AD 400–420), 6
Phase 5 (*c*. AD 420–450), 6, 7
Phase 6 (mid to late 5th century), 7
Phase 7 (early 6th century), 7, 8
Phase 8 (*c*. AD 525–550), 8
Phase 9 (*c*. AD 550–575), 8, 11
Phase 10 (late 6th to early 7th century), 11
Phase 11 (mid 7th to early 10th century), 11
Phase 12 (early to late 10th century), 11, 12
Phase 13 (early 11th to late 12th century), 12
Phase 14 (13th to 14th century), 12, 13
Phase 15 (15th century and later), 14
pithoi. *See* storage containers
pits, 8, 13, 187, 197, 201, 252, 264, 266
plants. *See* archaeobotanical material
Poggio Gramignano, Umbria (Italy), 255
portico, 6, 7, 8, 13, 108, 110, 119, 136, 169, 179, 180, 184, 188, 189, 190, 191, 193, 198, 199, 200, 201, 202, 203, 205, 210, 211, 213, 247, 248, 250, 264, 266
post-built structures (post-holes, stake-holes), 6, 8, 11, 12, 13, 14, 21, 73, 75, 76, 123, 132, 145, 153, 154, 174, 178, 179, 201, 250, 252, 261, 264
post-holes. *See* post-built structures (post-holes, stake-holes)
Priene (Turkey), 104
Procopius, 167
Prytaneion, Dodona (Greece), 258
Puglia, 253

quernstones, whetstones, 107, 180, 185–186, 249, 252

Raymond of Aguilers, 101
reception room. *See* Room 24 (reception room)
roads, tracks, 1, 5, 12, 136, 146, 155, 198, 247, 261, 265, 268
Robert Guiscard, 104, 264
Roger II of Sicily, 104
Roger of Hoveden, 104, 266, 268
Rome, 40
Room 1 (*triclinium*), 1, 6, 11, 14, 106, 107, 108, 110, 111, 127, 180, 208, 210, 247, 250, 258, 261, 266
Room 6, 208, 209
Room 10, 107, 109, 110, 111, 131, 138, 144, 147, 161, 222, 225, 227, 233, 236, 238, 239, 240, 241, 248
Room 11, 106, 137
Room 12, 225
Room 13, 229
Room 14, 11, 48, 50, 51, 106, 109, 116, 133, 135, 145, 185, 194, 202, 207, 223, 227, 229, 233, 240, 242, 250, 252, 261
Room 16 (peristyle courtyard), 1, 6, 7, 14, 73, 74, 76, 106, 107, 108, 109, 110, 111, 112, 113, 119, 122, 126, 130, 133, 136, 139, 141, 143, 149, 154, 155, 156, 157, 158, 161, 163, 166, 168, 169, 172, 174, 178, 179, 180, 181, 182, 184, 185, 186, 188, 190, 191, 193, 194, 195, 198, 199, 200, 201, 202, 203, 204, 205, 206, 208, 210, 211, 213, 216, 217, 219, 223, 225, 227, 229, 233, 234, 236, 238, 239, 240, 242, 243, 245, 246, 247, 248, 250, 253, 254, 255
Room 17, 11, 13, 48, 50, 51, 54, 66, 108, 109, 111, 153, 156, 161, 164, 179, 233, 234, 236, 240, 243, 250, 253, 261, 266
Room 18 (long gallery), 2, 6, 7, 8, 11, 12, 48, 50, 54, 73, 76, 107, 108, 109, 110, 111, 113, 120, 124, 125, 128, 129, 142, 147, 149, 156, 159, 161, 162, 167, 170, 172, 178, 181, 186, 195, 196, 199, 202, 203, 207, 216, 219, 222, 223, 225, 229, 233, 236, 238, 239, 240, 245, 248, 250, 252, 253, 254, 255, 261
Room 19, 11, 12, 107, 109, 114, 128, 129, 152, 172, 174, 177, 181, 188, 192, 193, 198, 202, 204, 205, 227, 229, 234, 236, 238, 239, 240, 241, 242, 243, 261, 264
Room 20, 8, 11, 54, 107, 139, 143, 172, 196, 201, 227, 240, 250, 252
Room 21, 7, 11, 75, 76, 107, 109, 111, 120, 129, 136, 139, 142, 152, 159, 172, 187, 197, 200, 222, 225, 227, 231, 252, 253, 254

Room 22, 11, 12, 15, 48, 54, 110, 111, 131, 144, 156, 161, 162, 172, 175, 177, 178, 180, 181, 184, 190, 196, 198, 199, 208, 212, 219, 225, 236, 248, 250, 252, 261
Room 23, 6, 11, 12, 50, 51, 54, 66, 106, 107, 109, 110, 112, 123, 129, 142, 158, 172, 174, 176, 180, 182, 185, 195, 197, 198, 202, 205, 207, 215, 216, 219, 223, 225, 227, 231, 238, 239, 240, 247, 248, 249, 250, 252, 261
Room 24 (reception room), 2, 6, 7, 11, 12, 50, 51, 54, 73, 76, 107, 109, 111, 115, 116, 117, 119, 142, 152, 154, 159, 161, 172, 174, 178, 179, 187, 199, 201, 202, 203, 204, 219, 225, 227, 229, 231, 233, 234, 238, 248, 250, 252, 253, 254, 257, 261
Room 25, 2, 6, 11, 12, 73, 107, 132, 145, 152, 154, 167, 172, 176, 177, 181, 186, 197, 198, 202, 203, 204, 227, 229, 233, 248, 261, 263
Room 26, 6, 12, 111, 139, 145, 147, 151, 152, 167, 173, 176, 185, 202, 204, 212, 219, 223, 225, 227, 233, 236, 238, 242, 248, 249, 250, 252, 261
Room 27, 7, 11, 13, 21, 76, 161, 173, 181, 185, 191, 197, 213, 223, 227, 233, 234, 238, 248, 252, 261, 266
Room 28, 11, 110, 123, 153, 173, 225
Room 29, 8, 13, 21, 73, 76, 106, 107, 111, 145, 146, 147, 148, 150, 153, 154, 159, 173, 174, 180, 186, 197, 198, 200, 208, 216, 227, 238, 240, 247, 248, 252, 255
Room 30, 151, 223, 225, 227, 229, 231, 233, 234, 236, 240
Room 31, 11, 12, 129, 136, 141, 154, 156, 173, 181, 185, 186, 198, 199, 200, 213, 222, 225, 227, 233, 238, 240, 242, 247, 248, 250, 252, 261
Room 32, 110, 135
Room 33, 229
Room 35, 118
Room 36, 73, 240
Room 37, 7, 107, 111, 127, 152, 157, 159, 171, 172, 173, 174, 179, 180, 181, 189, 198, 199, 201, 202, 207, 208, 209, 220, 225, 227, 233, 236, 238, 239, 240, 243, 247, 248, 249, 252
Room 38, 73, 76, 107, 109, 112, 135, 153, 154, 160, 161, 167, 172, 173, 174, 197, 202, 206, 212, 217, 229, 245, 250, 255, 266
Room 39, 73, 75, 76, 107, 109, 111, 112, 113, 122, 123, 124, 125, 136, 138, 140, 146, 150, 155, 158, 161, 163, 165, 167, 168, 169, 174, 178, 180, 181, 182, 183, 185, 187, 201, 202, 205, 207, 216, 227, 236, 238, 240, 242, 243, 245
Room 40, 8, 12, 50, 73, 75, 107, 110, 111, 124, 136, 138, 147, 150, 161, 163, 167, 170, 171, 172, 173, 177, 178, 179, 183, 186, 202, 207, 208, 220, 227, 229, 231, 243, 245, 255, 261, 264, 265
Room 41, 111, 142, 161, 227, 233, 234, 245
Room 42, 167, 208
Room 43, 21, 76, 107, 110, 111, 129, 142, 164, 186, 200, 216, 243
Room 44, 165
Room 45, 76, 136, 137, 160, 173, 180, 197, 220, 222, 229, 234, 236, 238, 240, 245
Room 47, 7, 107, 222, 225, 236, 238, 255

Sardis (Turkey), 88, 89, 92, 93
Sicily, 253, 263
silver smithing. *See* metalworking
skeletons. *See* burials (cemeteries, graves, skeletons)
slag. *See* metalworking
Slavic invasions, 93
smithing. *See* metalworking
Sovjan (Albania), 23
Sparta, 98, 263
St. John, 119
St. Lot's Monastery (Jordan), 88
St. Paul, 120
stake-holes. *See* post-built structures (post-holes, stake-holes)
storage containers
  dolia, *pithoi*, 6, 7, 189, 198, 248, 249
Straits of Corfu, 101, 102, 104, 264, 265
Syria, 98

tesserae, 89, 107, 178, 179
Thasos (Greece), 101
tools and implements
  fish-hooks, 107, 111, 141–142
  keys, 109, 110, 135
  knives, 161–164, 208, 212, 216, 263, 267
  needles, 107, 109, 110, 111, 143–144, 161, 164, 165, 208, 211, 212, 213
  netting shuttles, 111, 142–143
  scissors, 161, 164, 165, 267
  spindle-hooks, spindle-whorls, 107, 109, 110, 139–142, 180, 182–183, 202–204, 208, 212–213, 217, 251, 263
  thimbles, 109, 141
  weapons, arrows, 167, 267
  weapons, axes, 161, 166–167, 266
  weapons, projectiles, 167
  weights, loom-weights, coin weights, 106, 107, 109, 110, 138, 174, 177, 180, 183–184, 202, 204–207, 251, 255, 263
tracks. *See* roads, tracks
Triangular Castle, 14, 267
triclinium. *See* Room 1 (*triclinium*)

Ugolini, Luigi Maria, ix

Venice, 103, 265
Via Egnatia, 104, 265
Vicennalia Master, 238
Vivari Channel, 1, 2, 6, 7, 8, 12, 14, 62, 96, 104, 107, 194, 250, 251, 255, 259, 261
Vrina Plain, 21, 23, 29, 30, 40, 41, 78, 87, 95, 96, 103, 104, 105, 123, 124, 218, 219, 252, 253, 256, 257, 260, 261, 262, 263, 264

wells, 7, 21, 105, 159, 174, 261, 263
Western Defences, 95, 218, 219, 260
William II, 104
windows, 108, 109, 174, 180, 189–190, 195, 208, 247, 258

wings (ranges)
  east, 1, 6, 73, 76, 106, 247, 250
  north, 1, 6, 8, 11, 13, 48, 108, 109, 111, 116, 133, 135, 145, 153, 156, 179, 185, 194, 202, 207, 223, 227, 229, 233, 234, 236, 240, 242, 243, 245, 250, 252, 253, 261, 264, 267
  south, 1, 6, 7, 8, 11, 12, 14, 15, 48, 50, 68, 73, 76, 107, 109, 110, 111, 114, 123, 128, 129, 131, 136, 139, 142, 143, 144, 152, 156, 158, 159, 161, 172, 174, 176, 177, 178, 180, 181, 182, 184, 187, 188, 190, 192, 193, 195, 196, 197, 198, 199, 200, 201, 202, 204, 205, 207, 208, 222, 223, 225, 227, 229, 231, 234, 236, 238, 239, 240, 242, 243, 248, 250, 251, 252, 253, 255, 261, 264
  west, 1, 6, 7, 8, 11, 12, 13, 14, 15, 68, 73, 76, 106, 107, 110, 111, 129, 132, 136, 139, 141, 145, 146, 147, 148, 150, 151, 152, 153, 154, 156, 159, 167, 174, 176, 180, 181, 183, 185, 186, 197, 198, 199, 200, 202, 204, 223, 225, 227, 229, 231, 233, 234, 236, 238, 240, 242, 248, 249, 250, 251, 252, 255, 257, 261, 264, 266
Zammit, Themistocles, 64

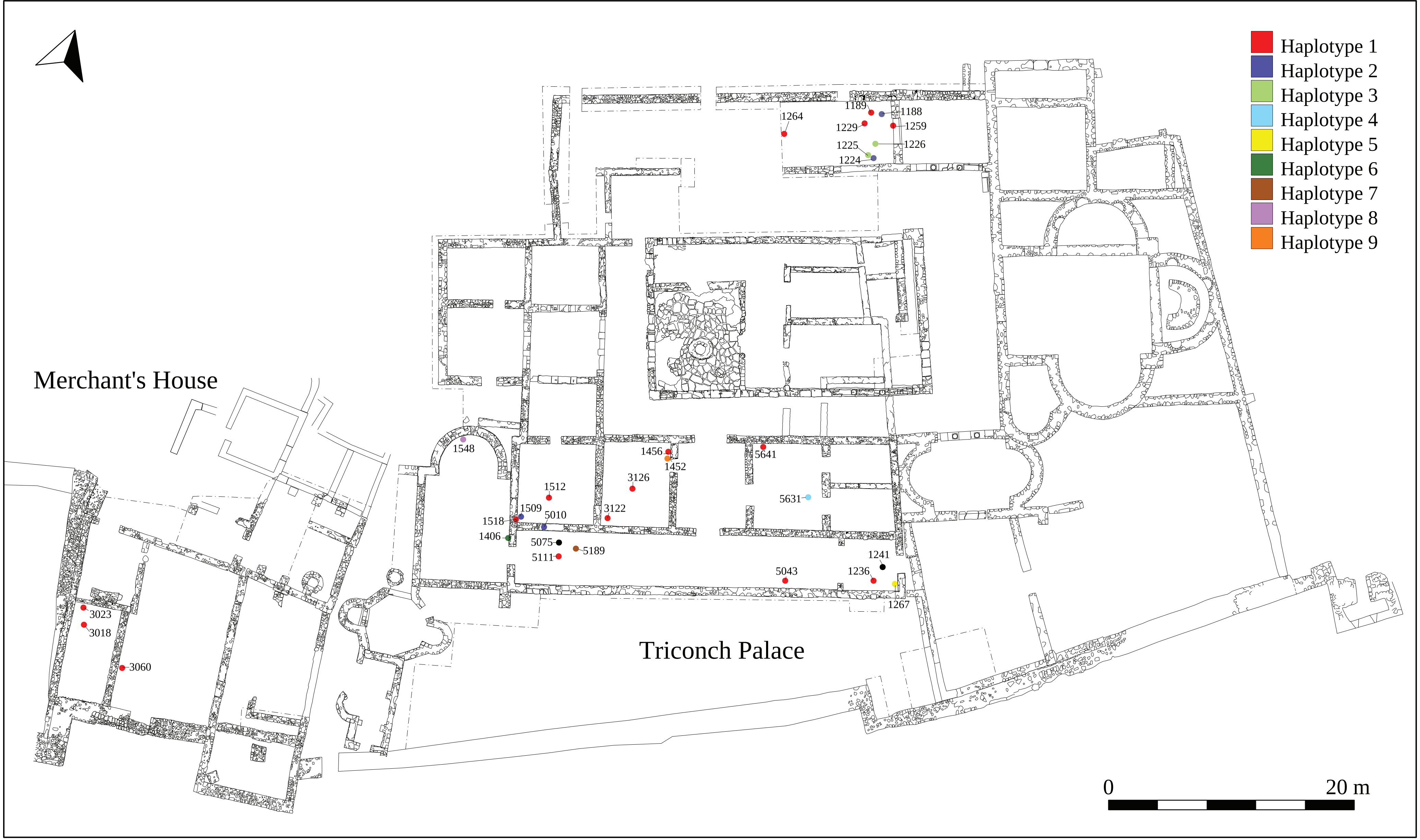

Haplotype 1
Haplotype 2
Haplotype 3
Haplotype 4
Haplotype 5
Haplotype 6
Haplotype 7
Haplotype 8
Haplotype 9
Merchant's House
Triconch Palace
1189
1188
1264
1229
1259
1225
1226
1224
1548
1456
1452
5641
1512
3126
5631
1509
5010
3122
1518
1406
5075
5189
5111
1241
5043
1236
1267
3023
3018
3060
0
20 m

Plate 4.1. Burial locations of the different haplotypes observed

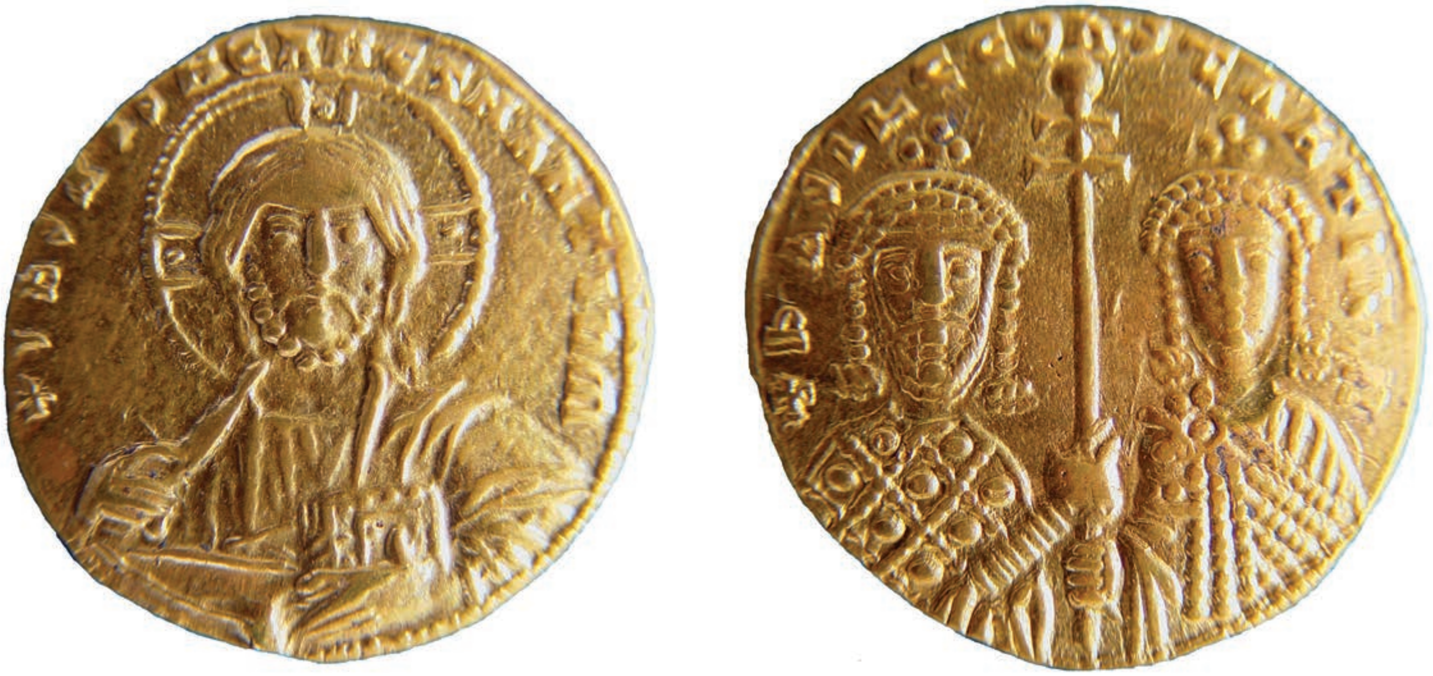


Plate 7.1. Gold tetarteron of Basil II, found in the courtyard

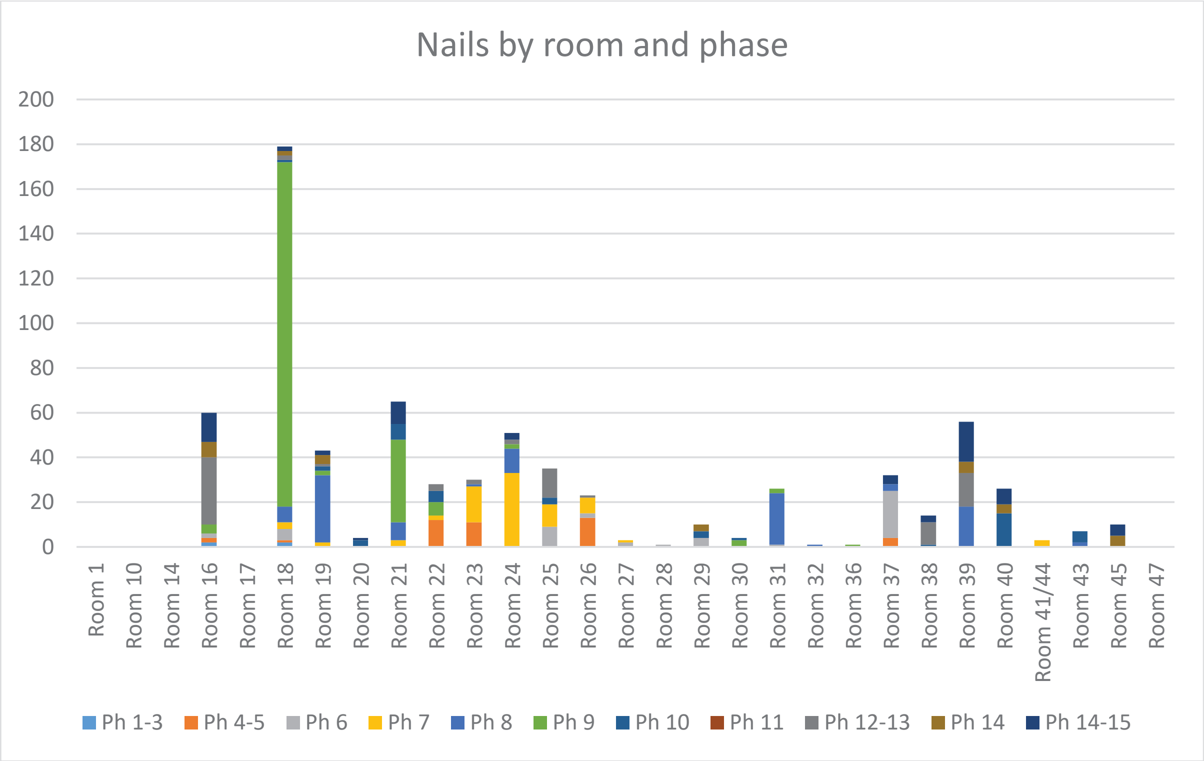


Plate 8.1. Fe nails by room and phase

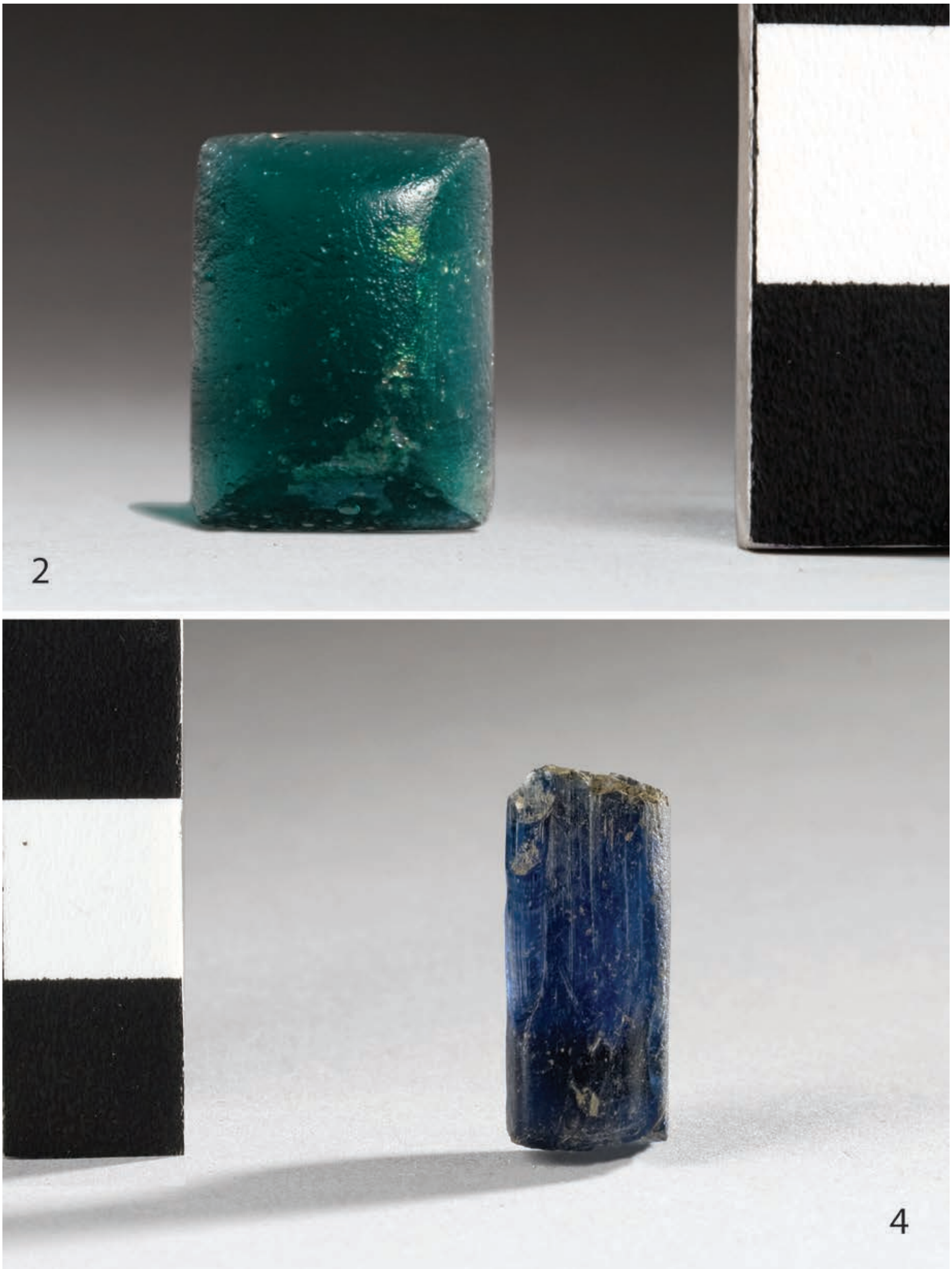


Plate 8.2. Faux gemstone and fragment of bangle (Glass artefacts cat. nos 2 and 4)

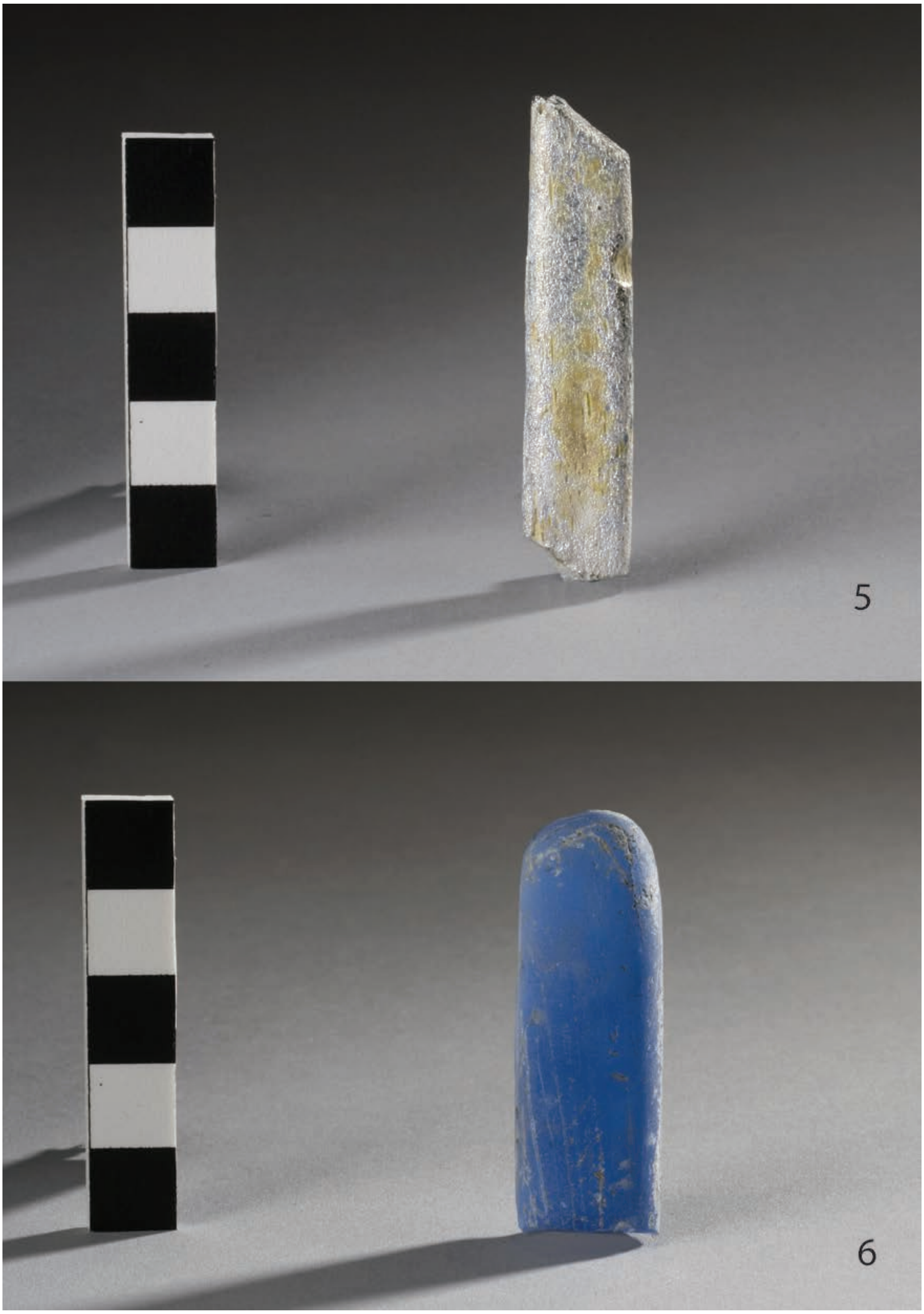


Plate 8.3. Glass veneers (Glass artefacts cat. nos 5 and 6)

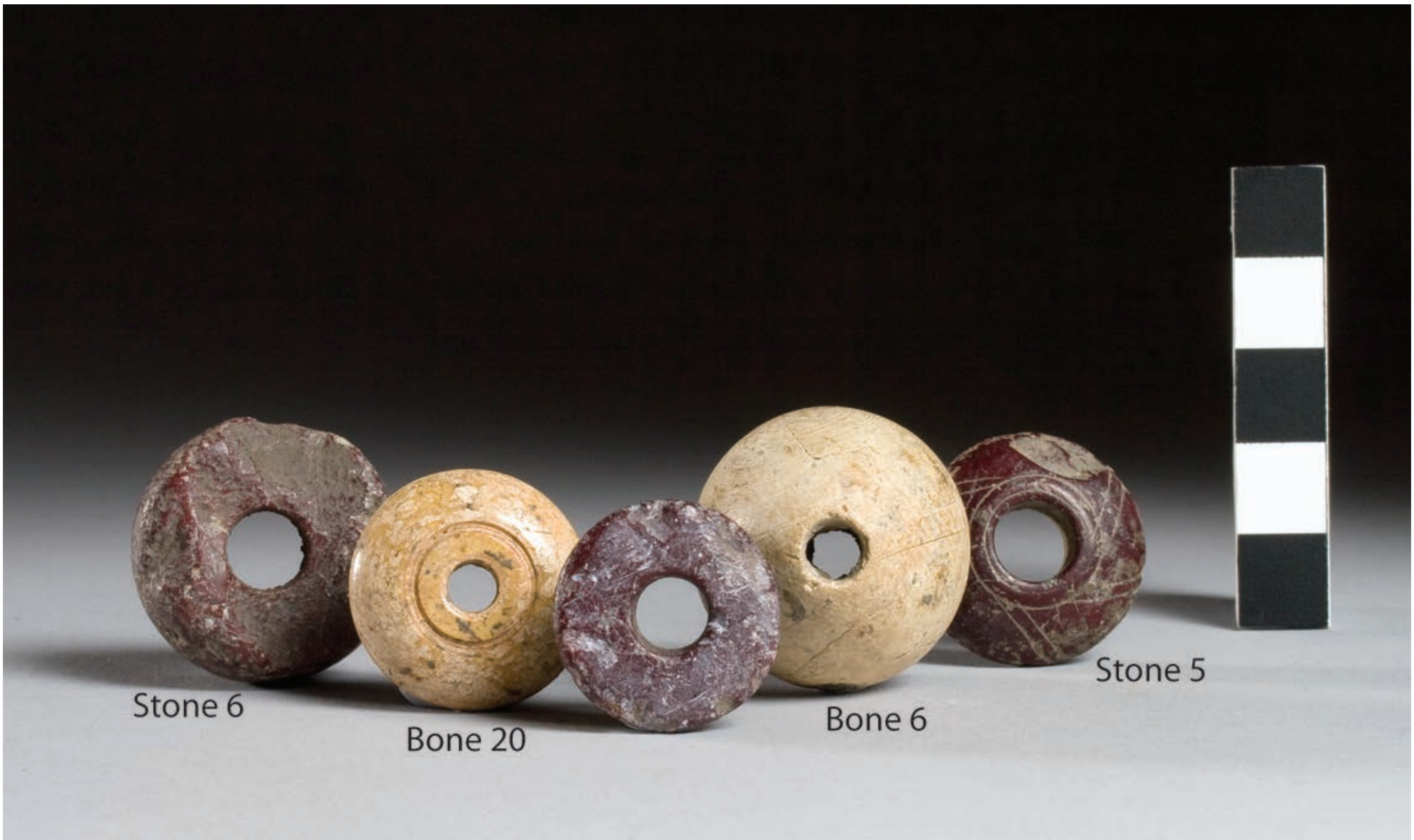

Stone 6
Bone 20
Bone 6
Stone 5

Plate 8.4. Selection of stone and bone spindle-whorls (Stone cat. nos 5 and 6 and Ivory and bone cat. nos 6 and 20)

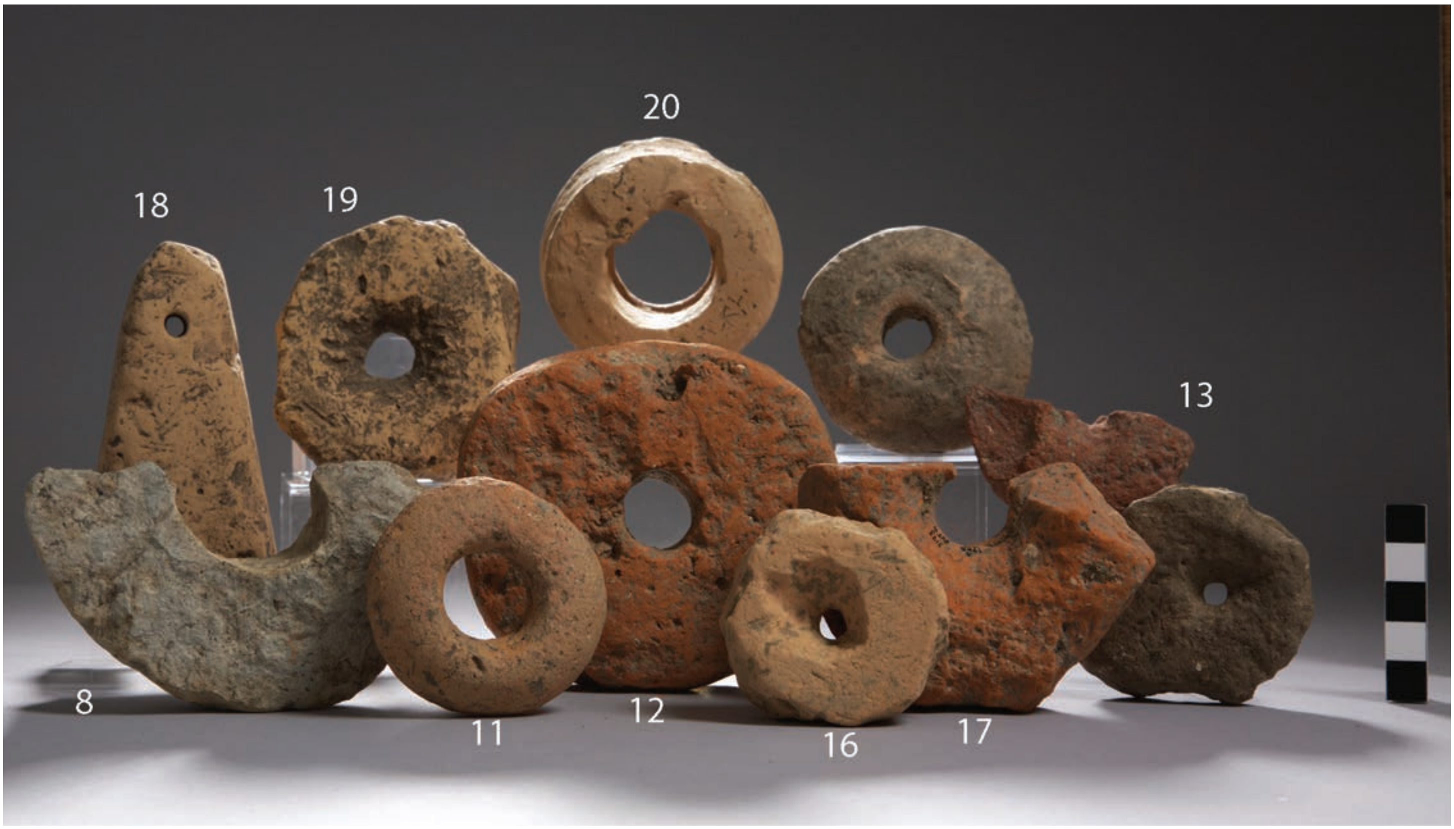

20
18
19
13
8
11
12
16
17

Plate 8.5. Ceramic weights and loom-weights (Ceramic object cat. nos 11, 12, 13, 16, 17, 18, 19 and 20 and Stone cat. no. 8). Unlabelled examples are from other areas of Butrint

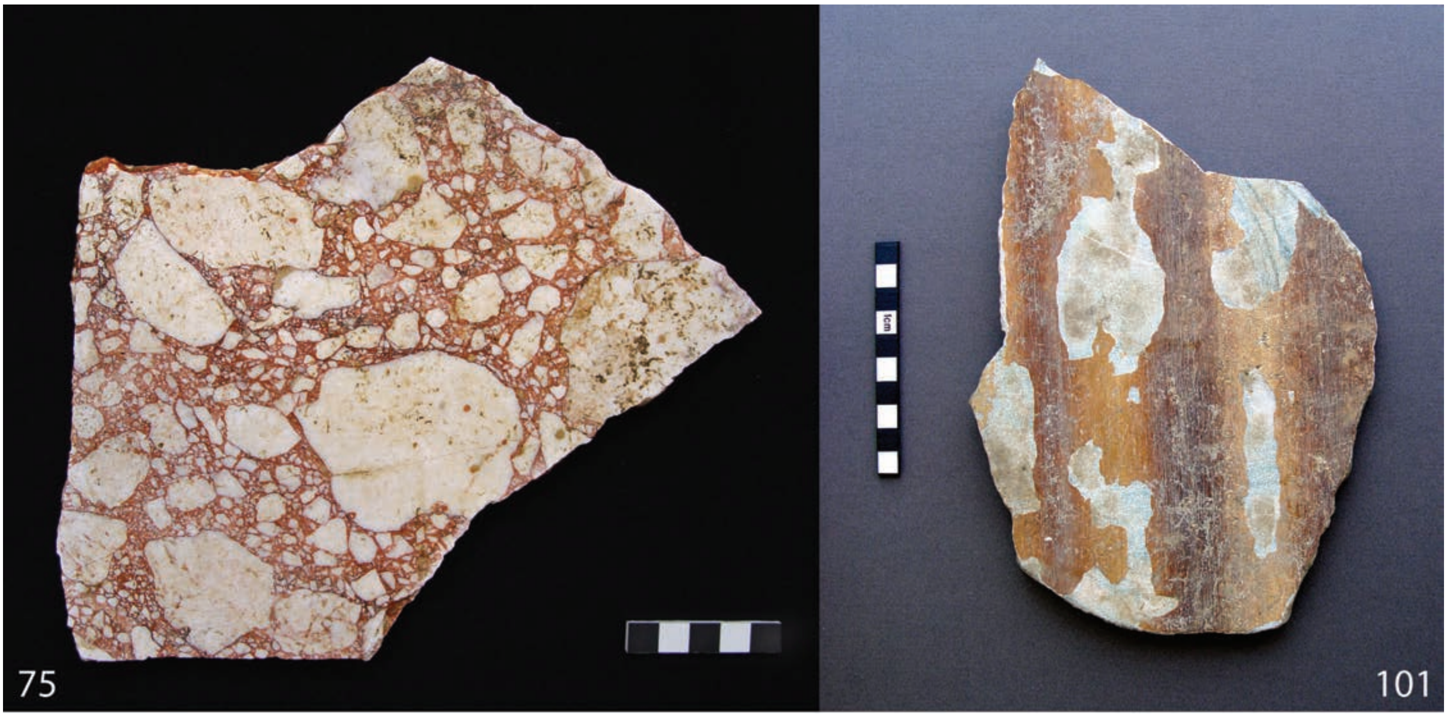


Plate 8.6. Marble veneer (Stone cat. no. 75) and painted marble veneer (Stone cat. no. 101)

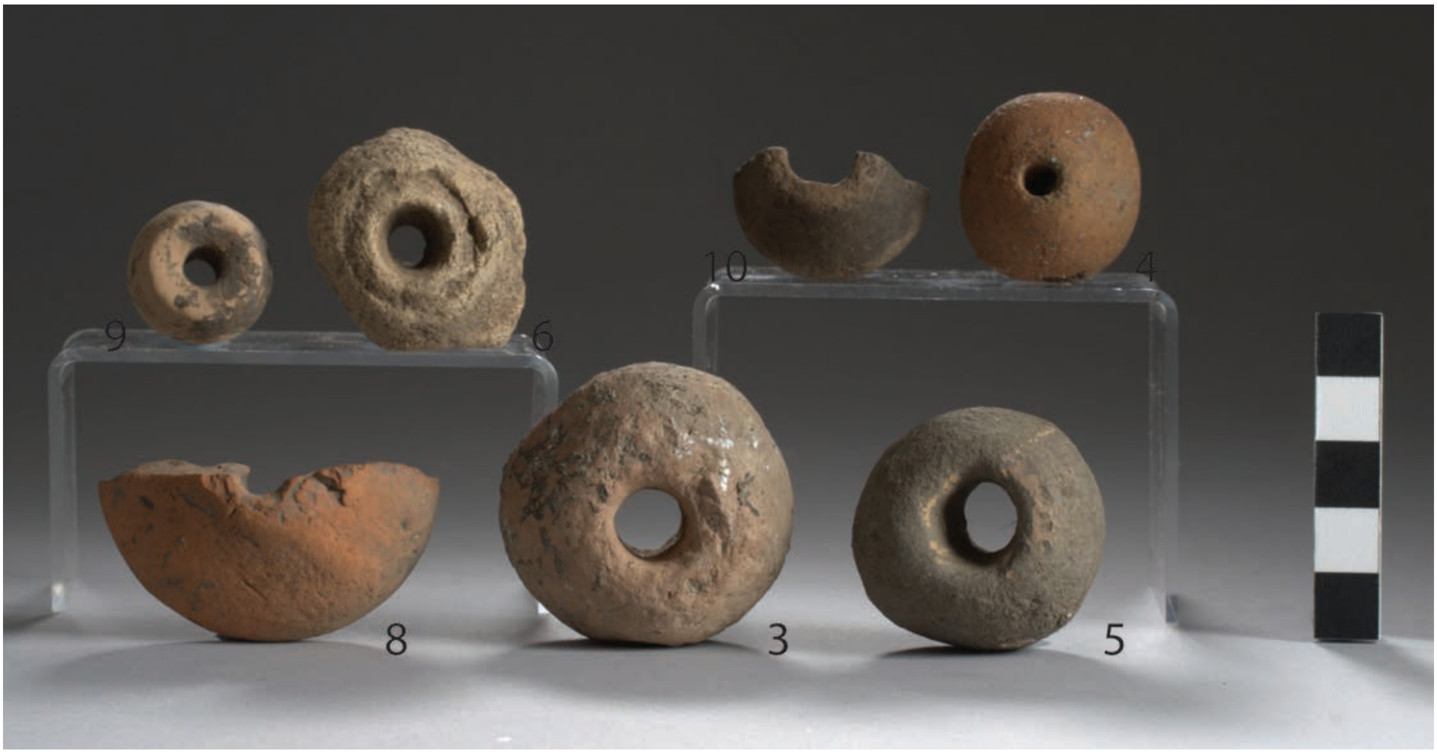


Plate 8.7. Ceramic spindle-whorls (Ceramic object cat. nos 3, 4, 5, 6, 8, 9 and 10)

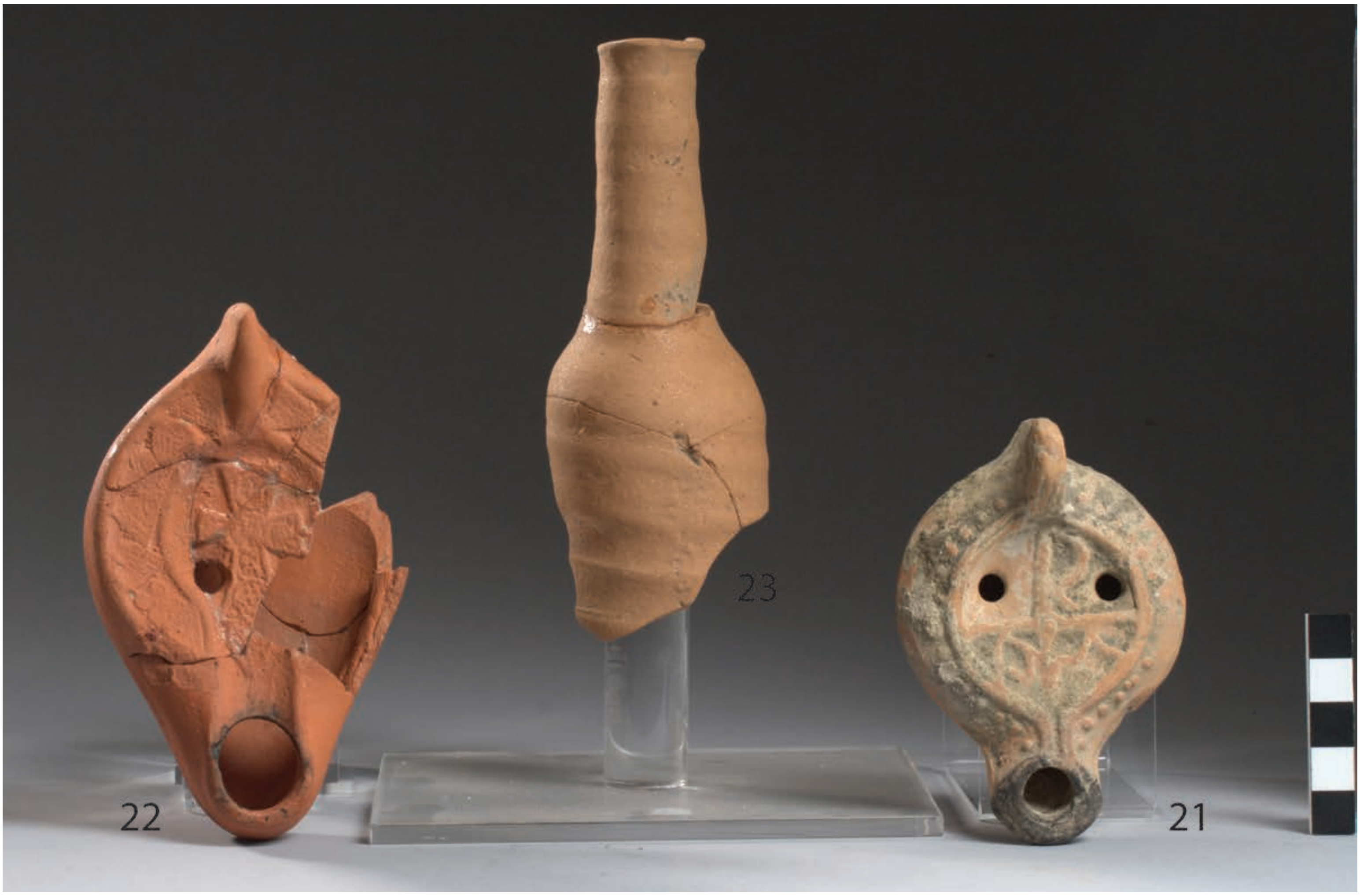


Plate 8.8. Ceramic lamps (Ceramic object cat. nos 22 and 23) and unguentarium (Ceramic object cat. no. 24)

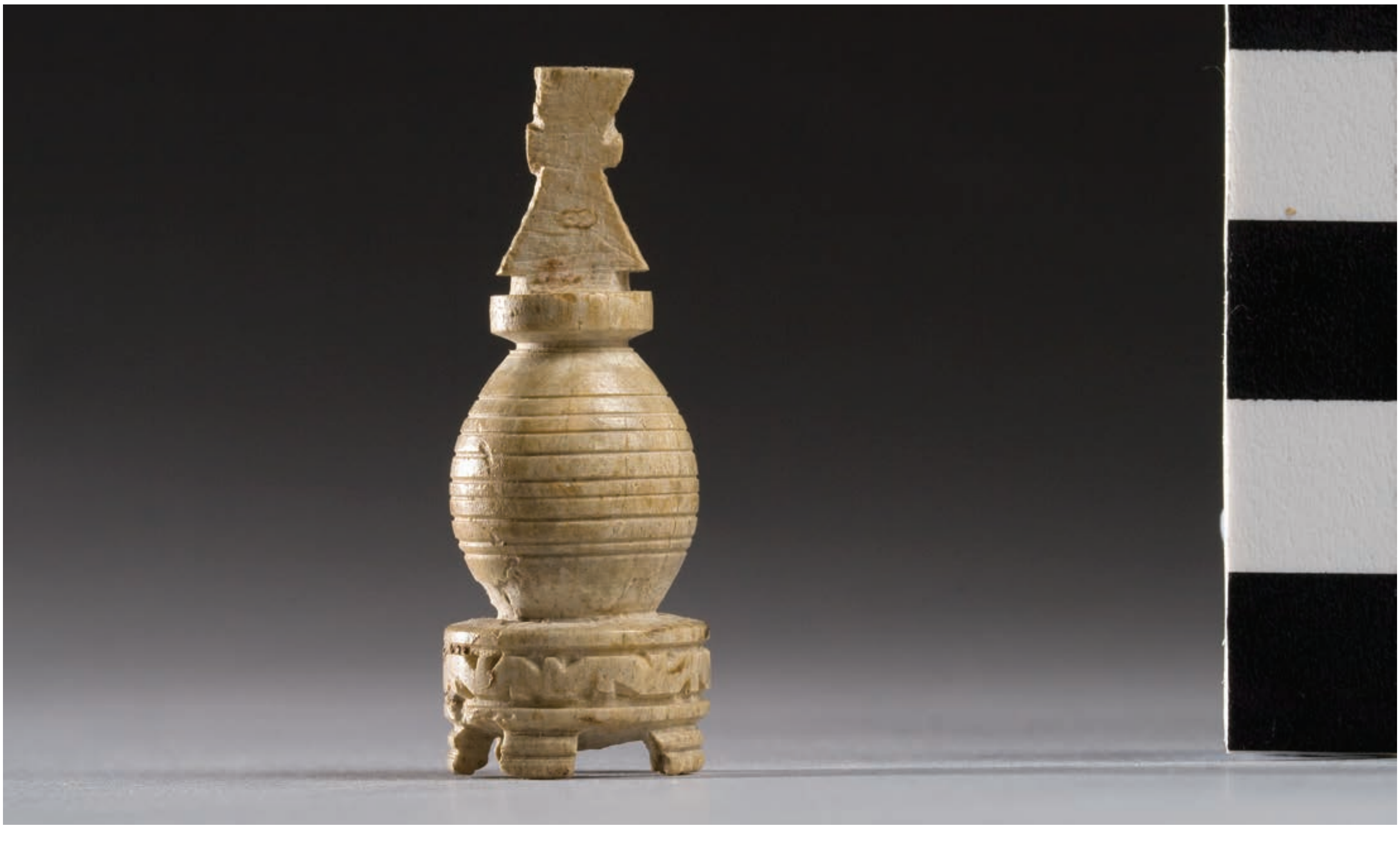


Plate 8.9. Ornately turned ivory artefact with cross terminal (Ivory and bone cat. no. 1)

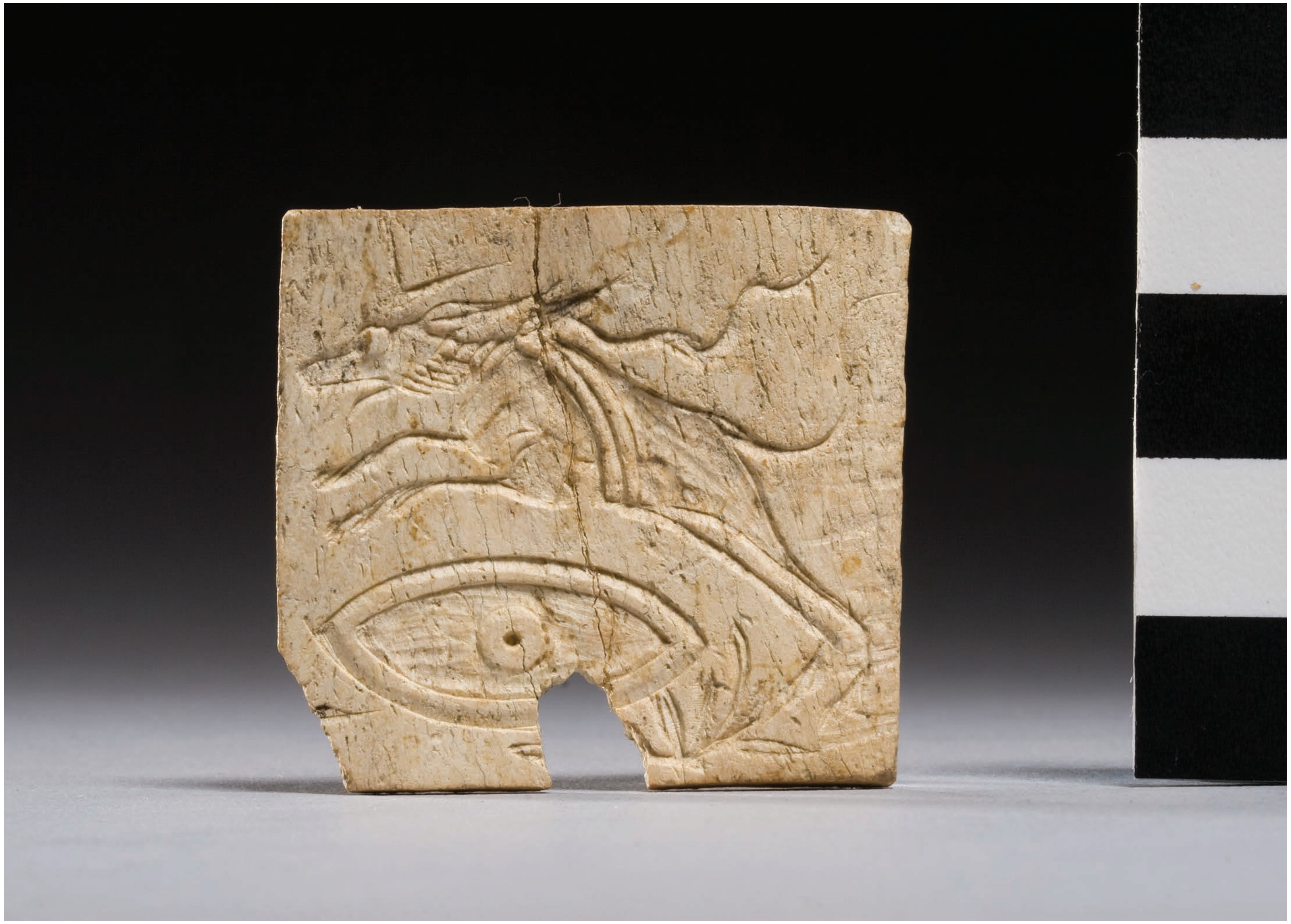


Plate 8.10. Bone plaque carved with a hunting dog leaping over a much-suffering eye (Ivory and bone cat. no. 3)

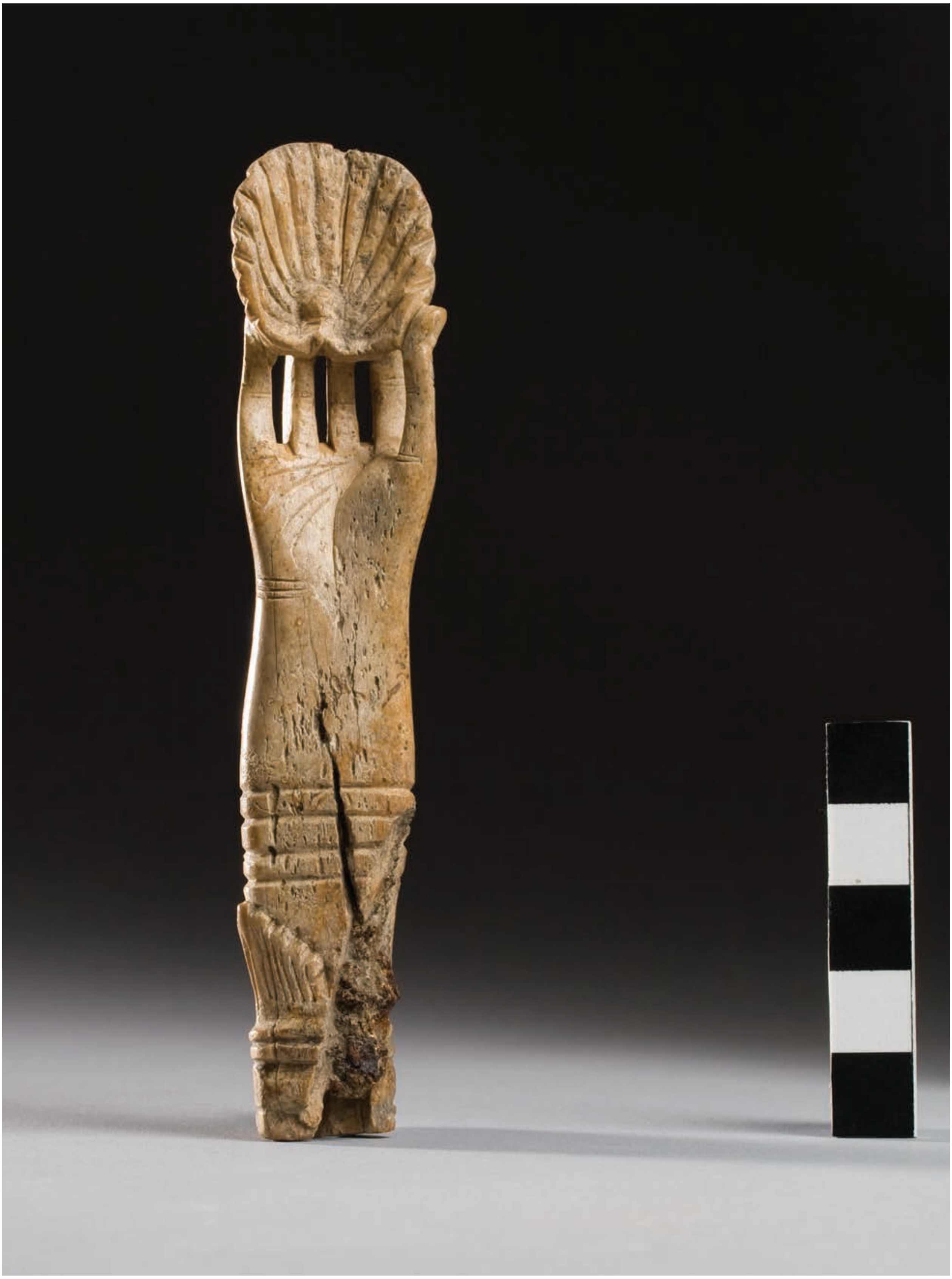


Plate 8.11. Bone handle in the form of a forearm and hand holding a shell (Ivory and bone cat. no. 5)

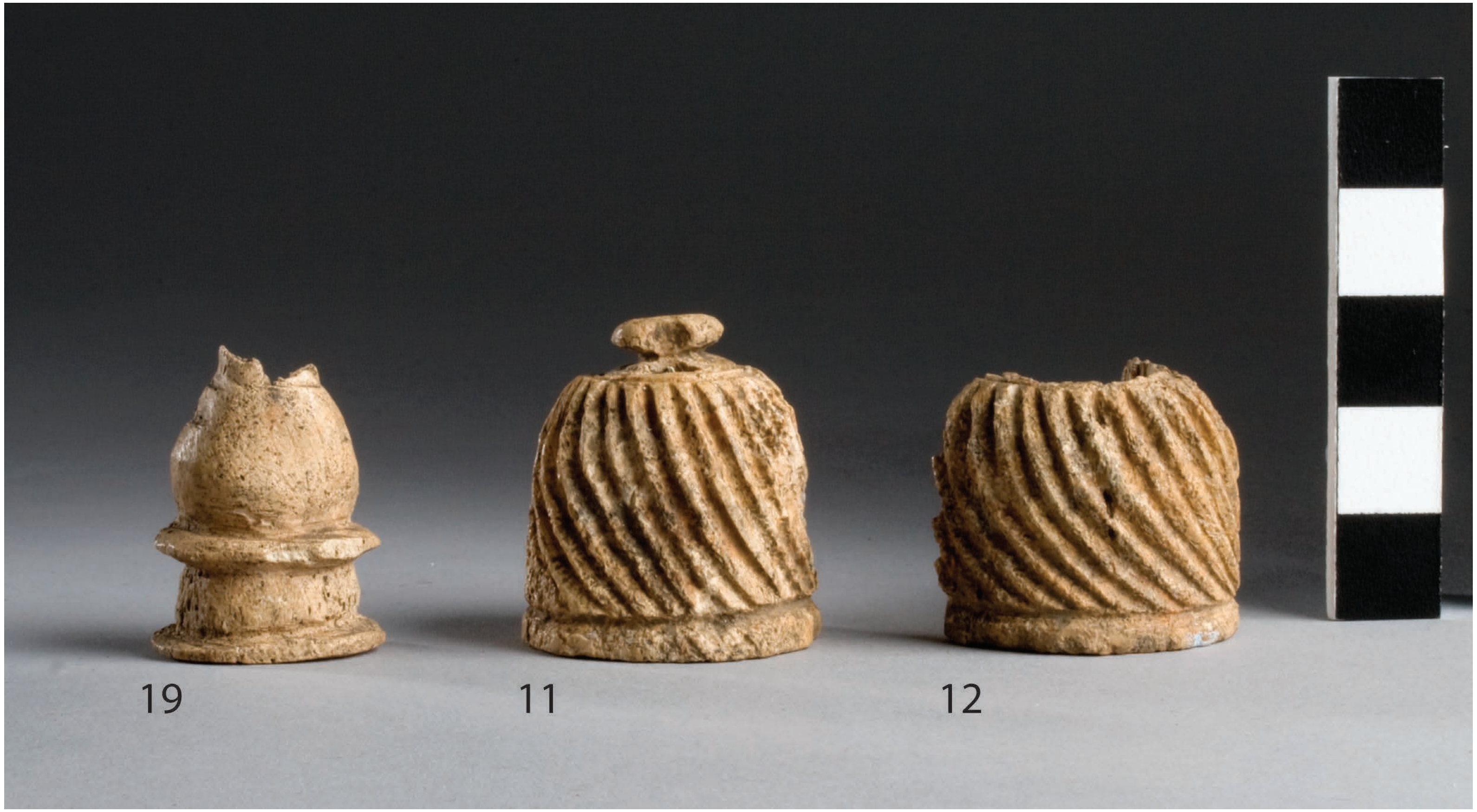


Plate 8.12. *Bone domical gaming pieces (Ivory and bone cat. nos 11, 12 and 19)*

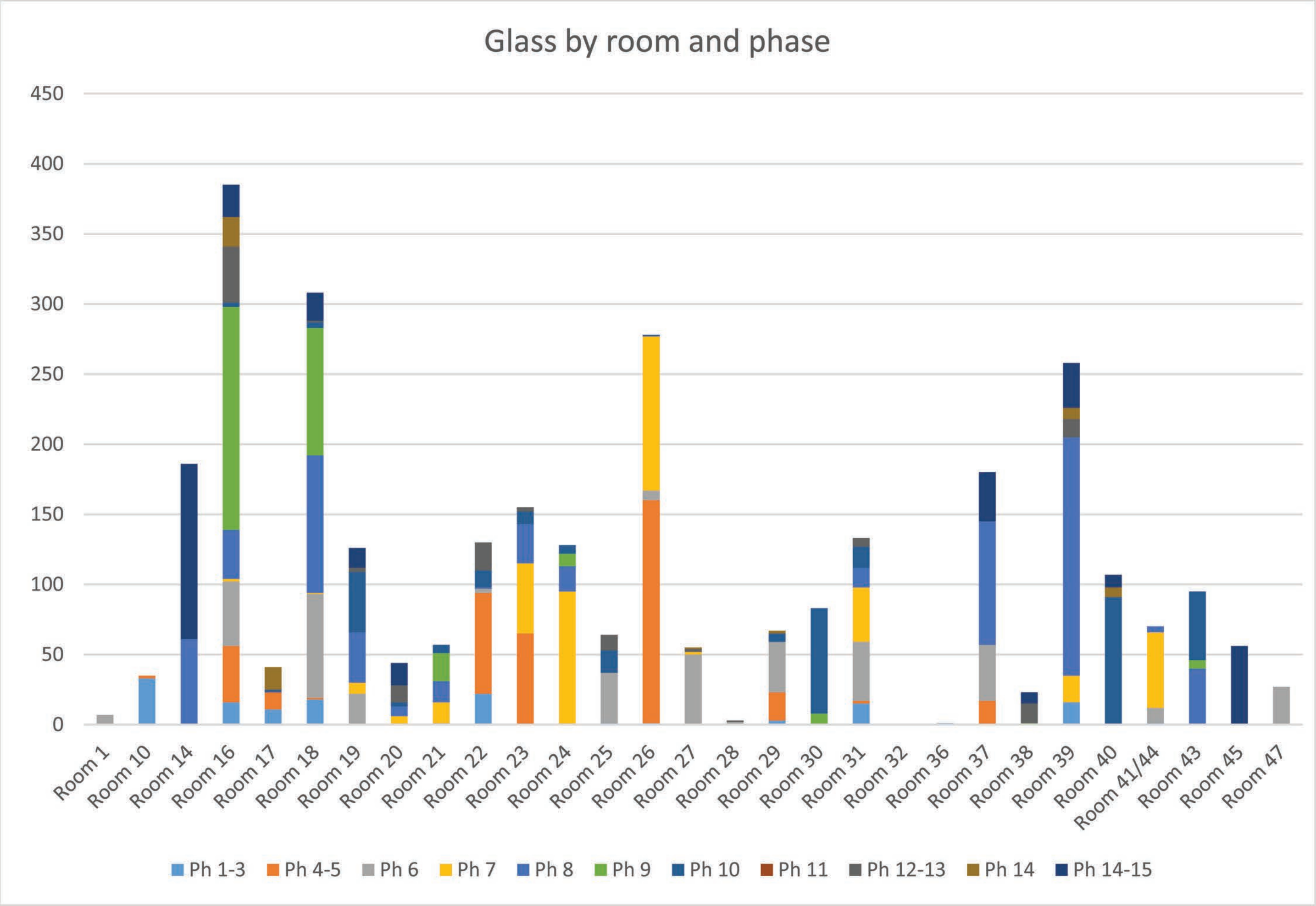


Plate 9.1. Deposition of glass by room and phase

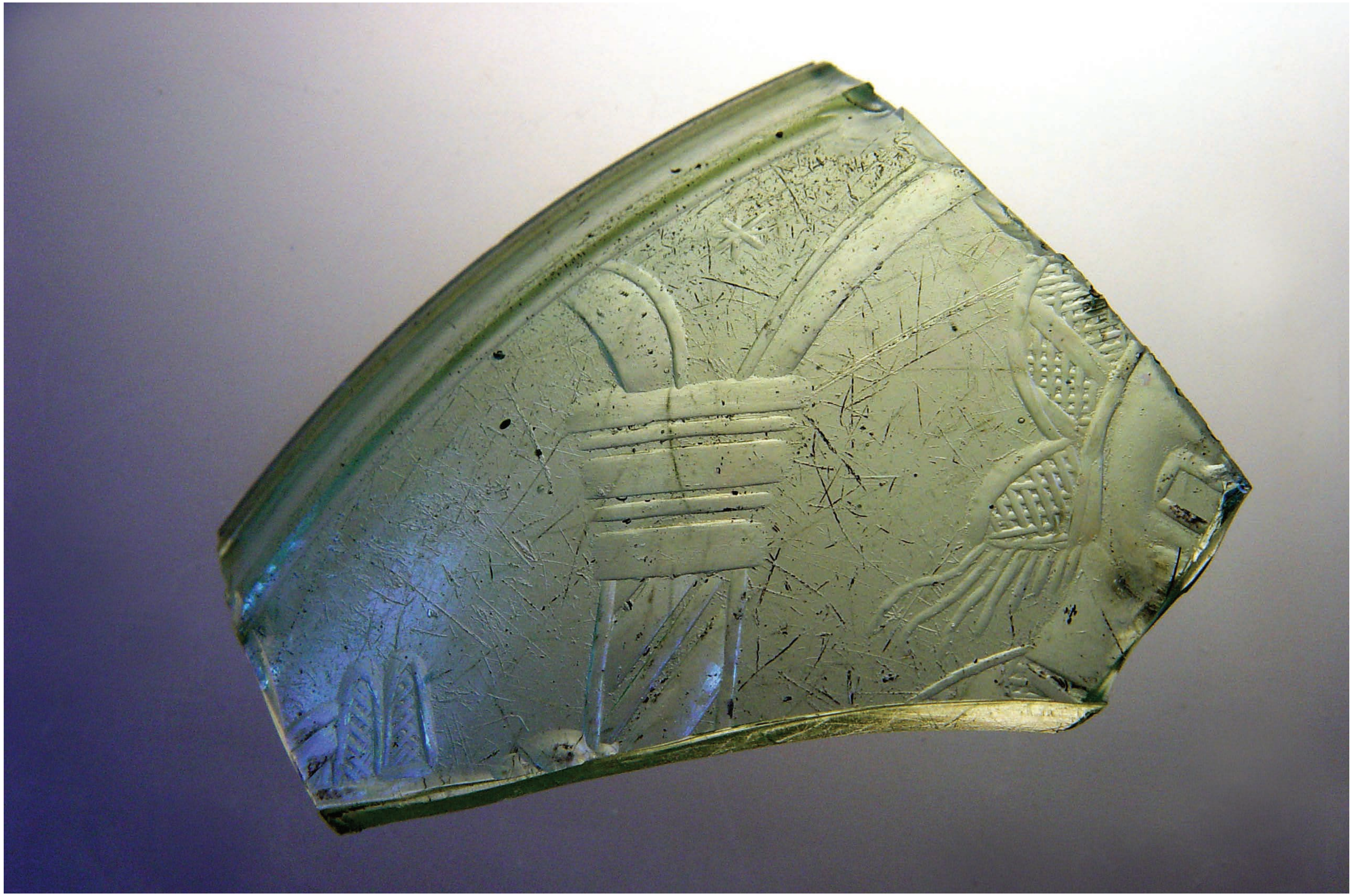


Plate 9.2. Vessel fragment with cut decoration (catalogue section IX; cut decoration no. 13)

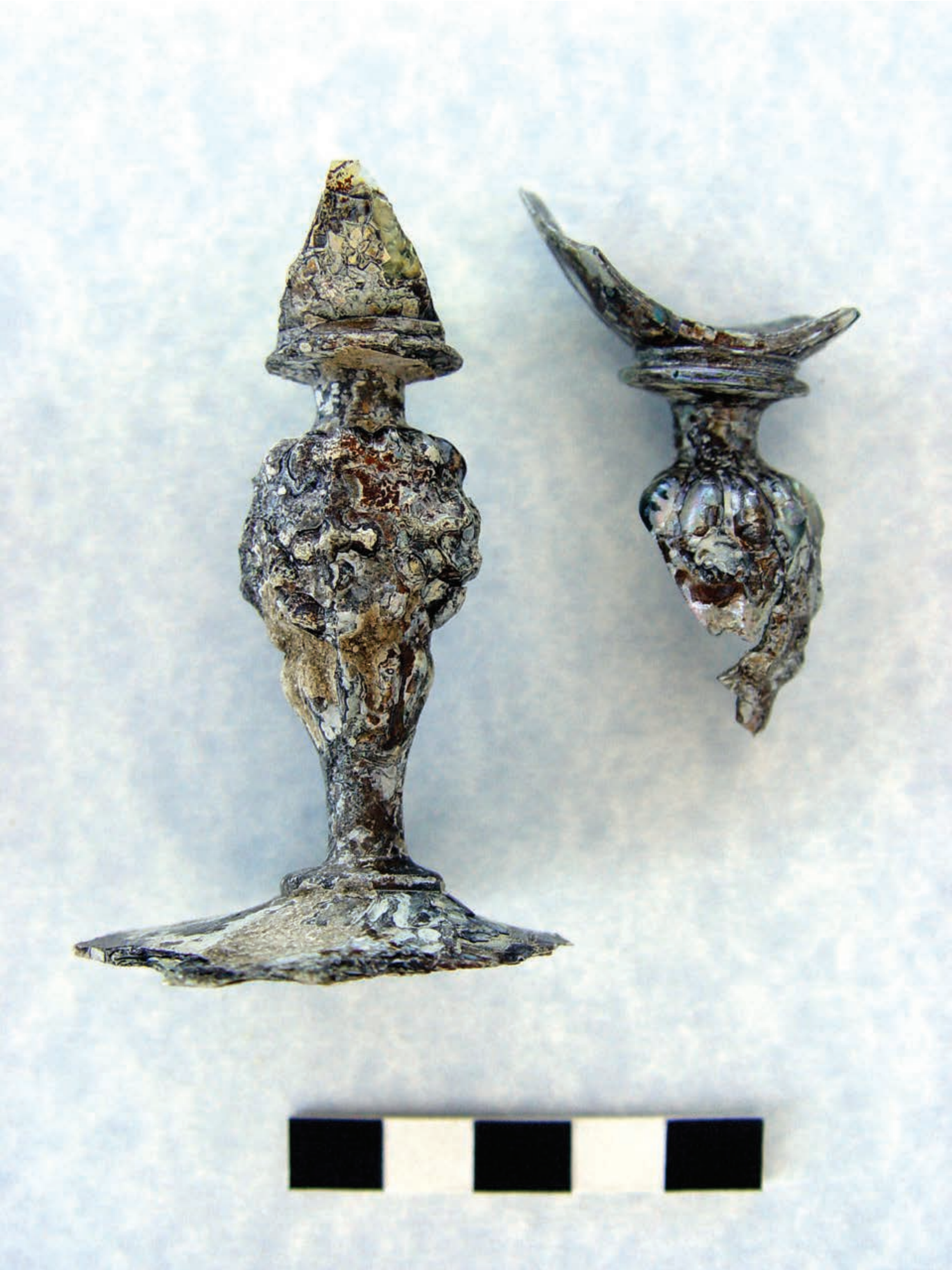


Plate 9.3. Medieval wine glasses with a mould-blown lion-mask stem (catalogue section XI; medieval glass nos 27 and 28)

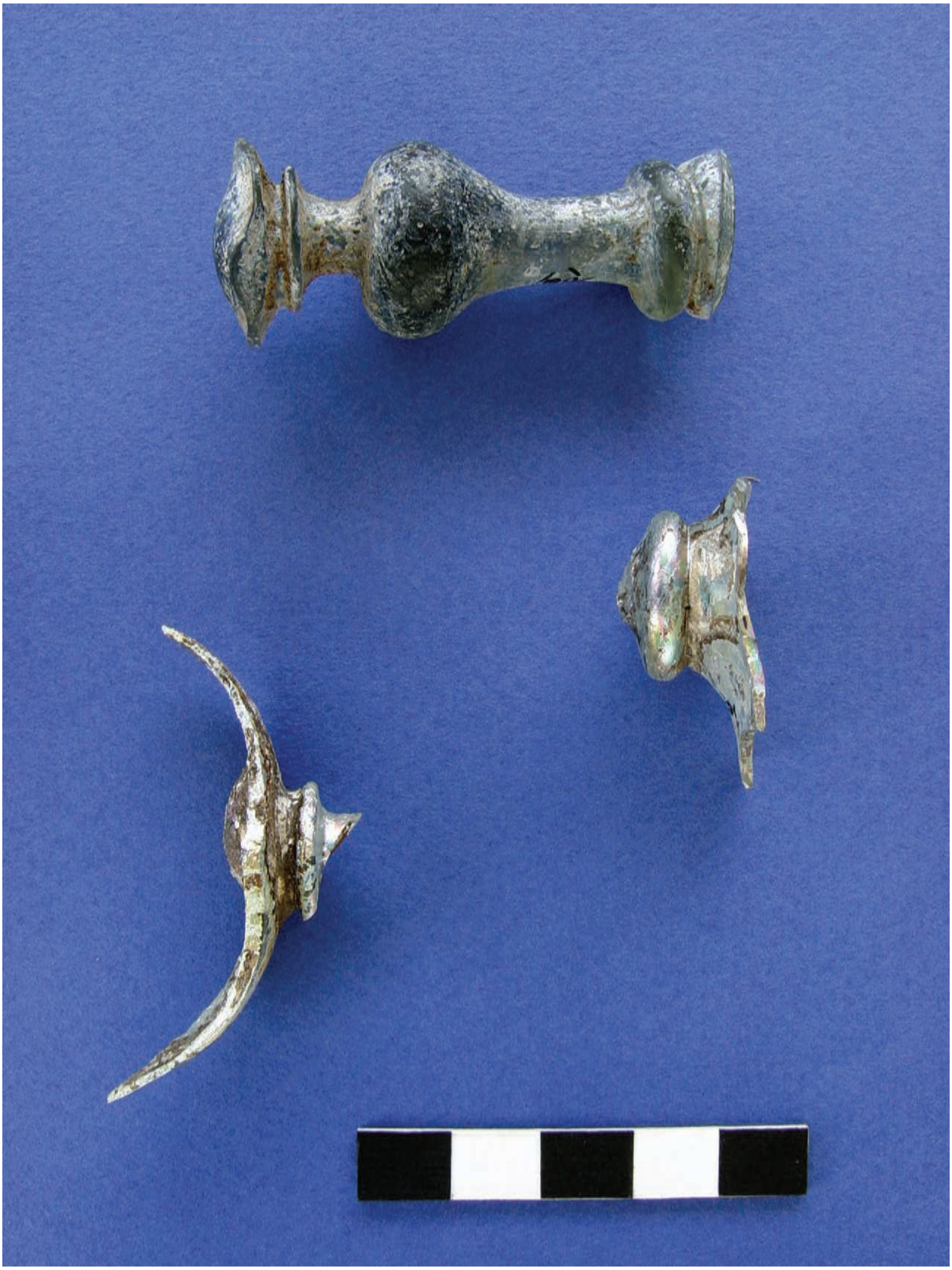
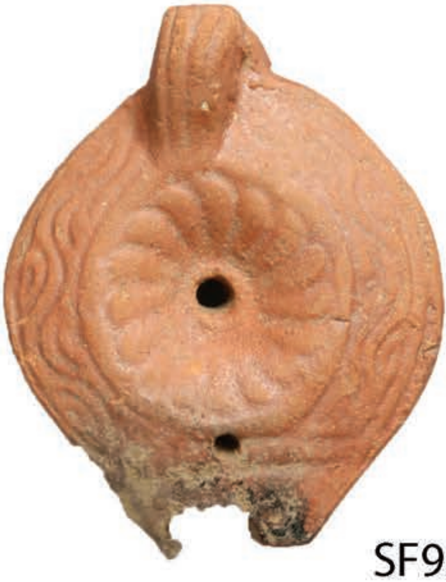


Plate 9.4. Medieval wine glasses (catalogue section XI; medieval glass nos 29 and 30)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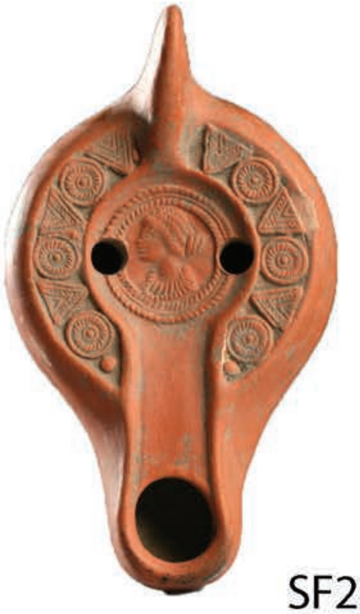
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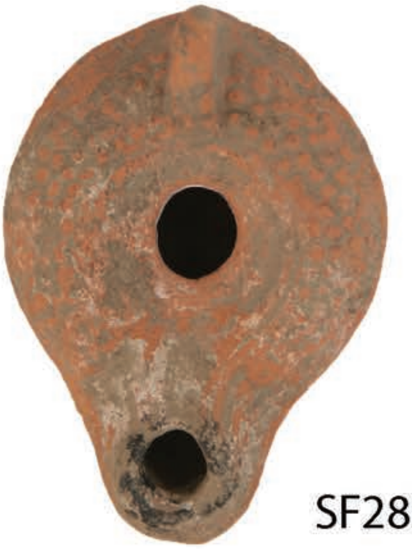
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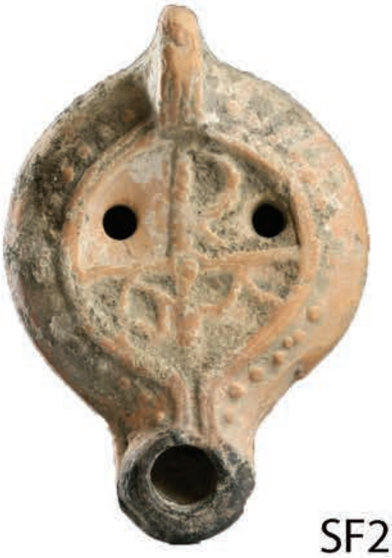
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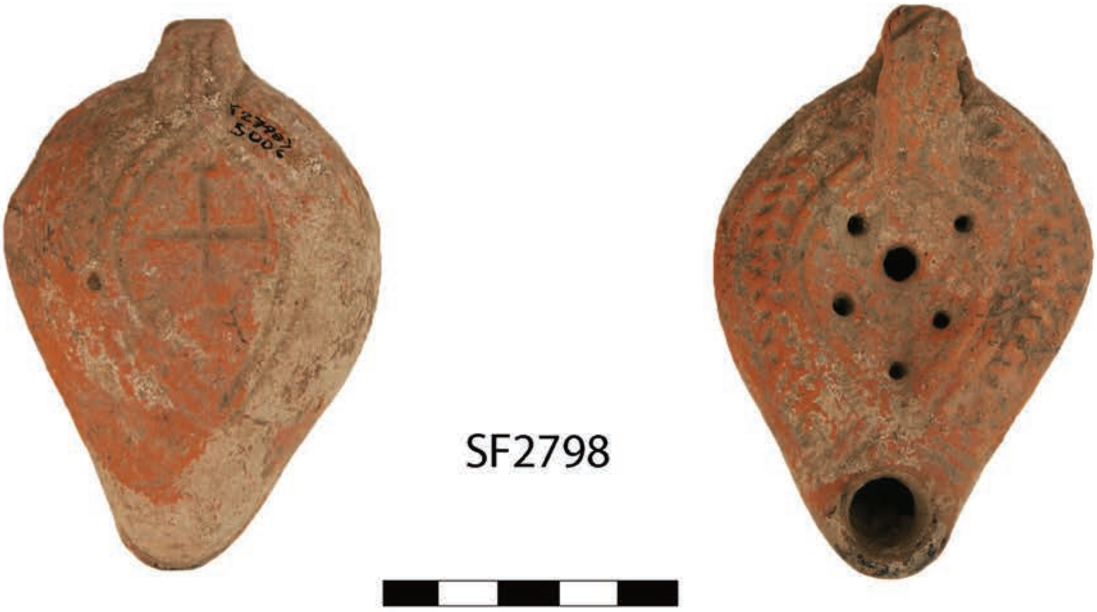
SF2798

Plate 10.1. *Five lamps found in 6th-century (Phases 7 and 8) roof collapse debris in the corners of Room 23, suggesting they were positioned to light the corners of the room (SF 2798 showing both top and bottom sides)*

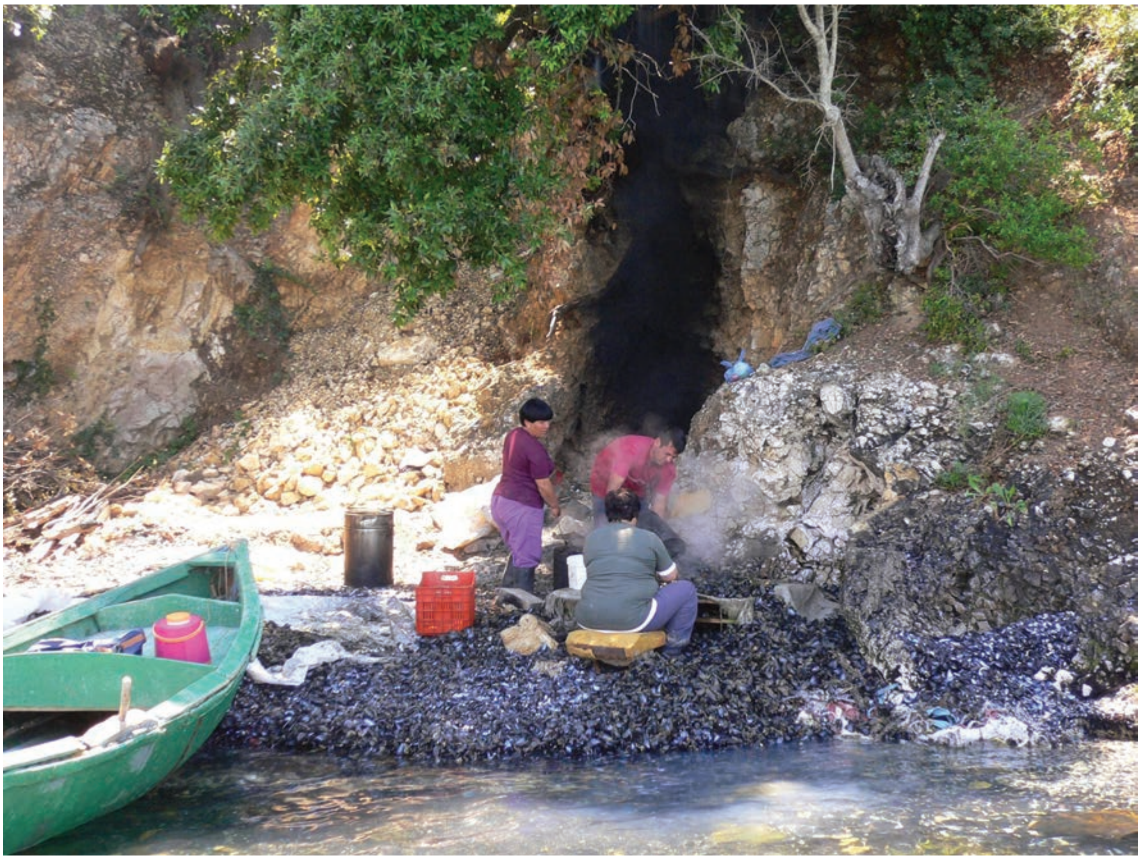

Plate 10.2. Present-day mussel processing on the shore of Lake Butrint. The mussels are cooked in old oil drums over an open fire in the cave (Emily Glass)

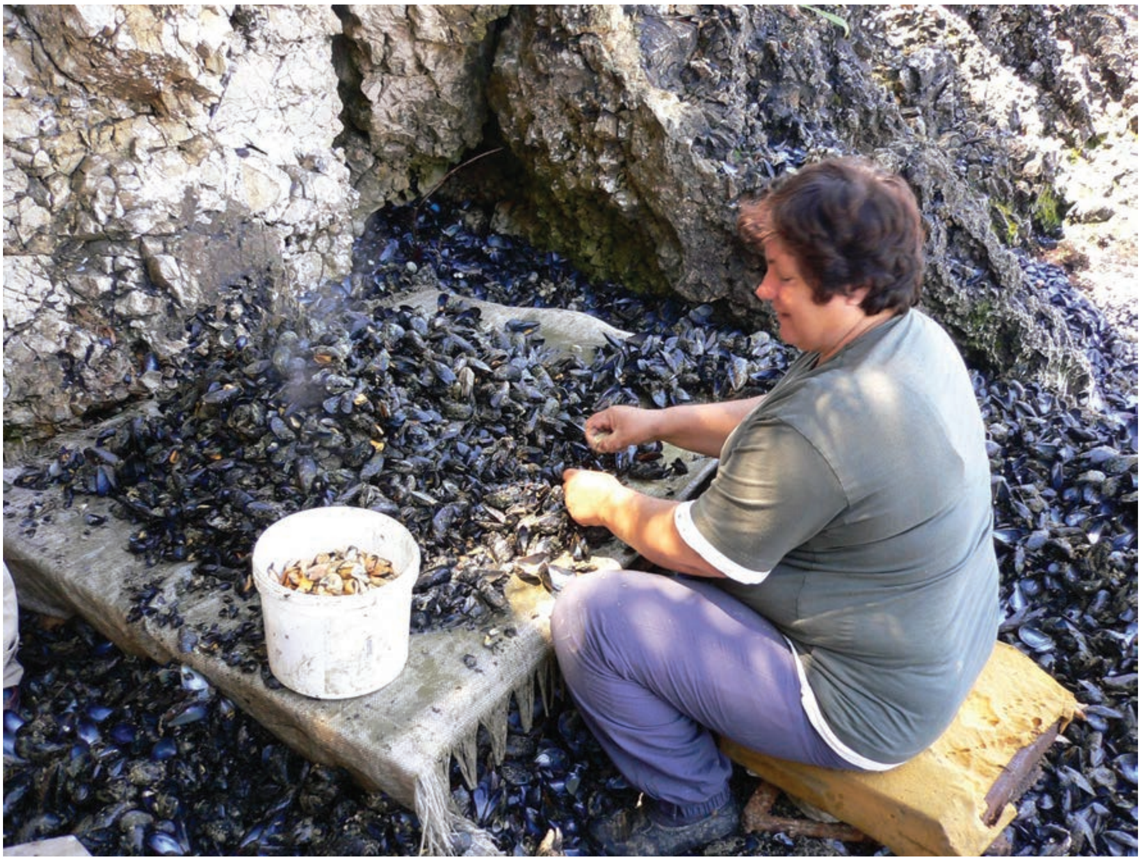

Plate 10.3. Present-day mussel processing. The cooked mussels are drained onto a mesh, shelled and then taken away to be sold, while the shell remains pile up on the shore (Emily Glass)

BUTRINT 5

LIFE AND DEATH AT A MEDITERRANEAN PORT

This is the second volume arising from the 1994–2003 excavations of the Triconch Palace at Butrint (Albania), which charted the history of a major Mediterranean waterfront site from the 2nd to the 15th centuries AD. The sequence (published as *Butrint 3: Excavations at the Triconch Palace* (Oxbow 2011) included the development of a palatial late Roman house, followed by intensive activity between the 5th and 7th centuries involving domestic occupation, metal-working, fishing and burial. The site saw renewed activity from the 10th century, coinciding with the revival of the town of Butrint, and for the following 300 years continued in intermittent use associated with its channel-side location.

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WILLIAM BOWDEN is Associate Professor of Roman Archaeology at the University of Nottingham and has been involved with the Butrint project since its inception in 1994. He has published widely on Roman, late antique and medieval archaeology in Europe and the Mediterranean and has carried out excavations in the UK, Italy and Jordan.

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